

Columbus, OH 43214 Phone: (614) 451-4375

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# **Genetic Testing Summary**

Enclosed are the genetic testing results for

# **CB 587**

No amount of genetic testing can guarantee that a child will not be affected with a genetic condition. Genetic testing can inform you of the likelihood of passing on the genetic conditions that are tested for, but it cannot eliminate the risk of passing on any genetic condition.

The genetic conditions Cryobio tests for are inherited in an autosomal recessive manner. This means that the child would have to inherit a genetic mutation from both the sperm source and the egg source to be affected with the condition. When both the sperm source and the egg source have undergone genetic carrier screening and the test results are negative, the risk of a child being affected with the conditions tested for is significantly reduced, but it cannot be completely eliminated.

All recipients should discuss both or their own risk for passing on genetic conditions and whether would benefit from genetic counseling and testing with their health care provider. Before using a donor that is a carrier for a specific recessive genetic condition or conditions, we strongly recommend that the recipient (or egg source, if different) consider genetic counseling and testing to determine if they are a carrier for the same genetic condition or conditions as the donor.

Screening and testing have changed dramatically over the years, and so the screening and testing done on each donor may very depending on the testing that was in place when he was actively in Cryobio's donor program. Earlier donors may not have had as extensive testing as later donors. Screening and testing may change again in the future, so please review the results each time before ordering as both the testing done and the results may change.

Patient Name:

**CB 587** 

Date Of Birth:

Gender:

Patient ID:

Ethnicity: Other

Medical Record #:

Collection Kit: Accession ID: Case File ID:

N/A

N/A

N/A

Test Information

Ordering Physician:

MD David Prescott

Clinic Information:

Phone:

(614) 451-4375

Cryobio Ohio

Report Date: Sample Collected: Sample Received:

06/21/2024 06/06/2024 06/07/2024

Sample Type:

Blood



# CARRIER SCREENING REPORT

ABOUT THIS SCREEN: Horizon™ is a carrier screen for specific autosomal recessive and Xlinked diseases. This information can help patients learn their risk of having a child with specific genetic conditions.

**ORDER SELECTED:** The Horizon Custom panel was ordered for this patient. Males are not screened for X-linked diseases

# FINAL RESULTS SUMMARY:



## **CARRIER for COL11A2-Related Conditions**

Positive for the pathogenic variant c.966dup (p.T323Hfs\*19) in the COL11A2 gene. Although most variants in this gene are associated with an autosomal recessive form of COL11A2-related conditions, some rare COL11A2 variants may cause an autosomal dominant form of the condition (PMID: 7859284, 15372529, 25780254, and 9506662). This individual's chance to have a child with COL11A2-related conditions is as high as 1 in 2 (50%). Carrier screening for this individual's partner is suggested.

# CARRIER for Ehlers-Danlos Syndrome Type Vi

Positive for the likely pathogenic variant c.1780G>T (p.E594\*) in the PLOD1 gene. If this individual's partner is a carrier for EHLERS-DANLOS SYNDROME TYPE VI, their chance to have a child with this condition may be as high as 1 in 4 (25%). Carrier screening for this individual's partner is suggested.

# Negative for 555 out of 557 diseases

No other pathogenic variants were detected in the genes that were screened. The patient's remaining carrier risk after the negative screening results is listed for each disease/gene on the Horizon website at https://www.natera.com/panel-option/h-all/. Please see the following pages of this report for a comprehensive list of all conditions included on this individual's screen.

Carrier screening is not diagnostic and may not detect all possible pathogenic variants in a given gene.

#### RECOMMENDATIONS

Individuals who would like to review their Horizon report with a Natera Laboratory Genetic Counselor may schedule a telephone genetic information session by calling 650-249-9090 or visiting naterasession.com. Clinicians with questions may contact Natera at 650-249-9090 or email support@natera.com. Individuals with positive results may wish to discuss these results with family members to allow them the option to be screened. Comprehensive genetic counseling to discuss the implications of these test results and possible associated reproductive risk is recommended.





Patient Name: CB 587 **Test Information** 

Ordering Physician: MD David Prescott

Clinic Information: Cryobio Ohio



Date Of Birth: Case File ID:

> Report Date: 06/21/2024

# **VARIANT DETAILS**

# COL11A2, c.966dup (p.T323Hfs\*19), heterozygous, pathogenic

- The c.966dup (p.T323Hfs\*19) variant in the COL11A2 gene has been observed at a frequency of 0.0121% in the gnomAD v2.1.1 dataset.
- This variant has been reported in a homozygous state or in conjunction with another variant in individual(s) with COL11A2-related disorders (PMID: 29456477).
- This premature termination variant is predicted to cause nonsense-mediated decay (NMD) in a gene where loss-of-function is a known mechanism of disease.
- This variant has been reported in ClinVar [ID: 497724].

# PLOD1, c.1780G>T (p.E594\*), heterozygous, likely pathogenic

- The c.1780G>T (p.E594\*) variant in the PLOD1 gene has been observed at a frequency of 0.0004% in the gnomAD v2.1.1 dataset.
- This premature termination variant is predicted to cause nonsense-mediated decay (NMD) in a gene where loss-of-function is a known mechanism of disease.
- This variant has not been described in ClinVar.



Patient Name: CB 587 **Test Information** 

Ordering Physician: MD David Prescott

Clinic Information: Crvobio Ohio

Date Of Birth: Case File ID:

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#### **DISEASES SCREENED**

Below is a list of all diseases screened and the result. Certain conditions have unique patient-specific numerical values, therefore, results for those conditions are formatted differently.

#### **Autosomal Recessive**

17-BETA HYDROXYSTEROID DEHYDROGENASE 3 DEFICIENCY (HSD17B3) negative

3-BETA-HYDROXYSTEROID DEHYDROGENASE TYPE II DEFICIENCY (HSD3B2) negative 3-HYDROXY-3-METHYLGLUTARYL-COENZYME A LYASE DEFICIENCY (HMGCL) negative 3-HYDROXYACYL-COA DEHYDROGENASE DEFICIENCY (HADH) negative 3-METHYLCROTONYL-CoA CARBOXYLASE 1 DEFICIENCY (MCCC1) negative 3-METHYLCROTONYL-CoA CARBOXYLASE 2 DEFICIENCY (MCCC2) negative 3-PHOSPHOGLYCERATE DEHYDROGENASE DEFICIENCY (PHGDH) negative

5-ALPHA-REDUCTASE DEFICIENCY (SRD5A2) negative

6-PYRUVOYL-TETRAHYDROPTERIN SYNTHASE ( PTPS ) DEFICIENCY (PTS) negative

A
ABCA4-RELATED CONDITIONS (ABCA4) negative ABETALIPOPROTEINEMIA (MTTP) negative ACHONDROGENESIS, TYPE 1B (SLC26A2) negative ACHROMATOPSIA, CNGB3-RELATED (CNGB3) negative ACRODERMATITIS ENTEROPATHICA (SLC39A4) negative

ACTION MYOCLONUS-RENAL FAILURE (AMRF) SYNDROME (SCARB2) negative ACUTE INFANTILE LIVER FAILURE, TRMU-RELATED (TRMU) negative ACYL-COA OXIDASE I DEFICIENCY (ACOX1) negative

AICARDI-GOUTIÈRES SYNDROME (SAMHD1) negative

AICARDI-GOUTIERES SYNDROME, RNASEH2A-RELATED (RNASEH2A) negative AICARDI-GOUTIERES SYNDROME, RNASEH2B-RELATED (RNASEH2B) negative AICARDI-GOUTIERES SYNDROME, RNASEH2C-RELATED (RNASEH2C) negative

AICARDI-GOUTIÈRES SYNDROME, TREX1-RELATED (TREX1) negative

ALKAPTONURIA (HGD) negative ALPHA-1 ANTITRYPSIN DEFICIENCY (SERPINA1) negative ALPHA-MANNOSIDOSIS (MAN2B1) negative

ALPHA-THALASSEMIA (HBA1/HBA2) negative ALPORT SYNDROME, COL4A3-RELATED (COL4A3) negative ALPORT SYNDROME, COL4A4-RELATED (COL4A4) negative

ALSTROM SYNDROME (ALMS1) negative
AMISH INFANTILE EPILEPSY SYNDROME (5T3GAL5) negative
ANDERMANN SYNDROME (SLC12A6) negative
ARGININE:GLYCINE AMIDINOTRANSFERASE DEFICIENCY (AGAT DEFICIENCY) (GATM) negative
ARGININEMIA (ARG1) negative
ARGININOSUCCINATE LYASE DEFICIENCY (ASL) negative

AROMATASE DEFICIENCY (CYP19A1) negative ASPARAGINE SYNTHETASE DEFICIENCY (ASNS) negative ASPARTYLGLYCOSAMINURIA (AGA) negative ATAXIA WITH VITAMIN E DEFICIENCY (TTPA) negative

ATAXIA-WITH VITAMINE DEFICIENCY (TPA) negative
ATAXIA-TELANGIECTASIA (ATM) negative
ATAXIA-TELANGIECTASIA-LIKE DISORDER 1 (MRE11) negative
ATRANSFERRINEMIA (TF) negative
AUTISM SPECTRUM, EPILEPSY AND ARTHROGRYPOSIS (SLC35A3) negative AUTOIMMUNE POLYGLANDULAR SYNDROME, TYPE 1 (AIRE) negative AUTOSOMAL RECESSIVE CONGENITAL ICHTHYOSIS (ARCI), SLC27A4-RELATED

(SLC27A4) negative

AUTOSOMAL RECESSIVE SPASTIC ATAXIA OF CHARLEVOIX-SAGUENAY (SACS) negative

BARDET-BIEDL SYNDROME, ARL6-RELATED (ARL6) negative BARDET-BIEDL SYNDROME, BBS10-RELATED (BBS10) negative BARDET-BIEDL SYNDROME, BBS12-RELATED (BBS12) negative BARDET-BIEDL SYNDROME, BBS1-RELATED (BBS1) negative BARDET-BIEDL SYNDROME, BBS2-RELATED (BBS2) negative BARDET-BIEDL SYNDROME, BBS4-RELATED (BBS4) negative BARDET-BIEDL SYNDROME, BBS5-RELATED (BBS5) negative BARDET-BIEDL SYNDROME, BBS7-RELATED (BBS7) negative BARDET-BIEDL SYNDROME, BBS9-RELATED (BBS9) negative BARDET-BIEDL SYNDROME, TTC8-RELATED (TTC8) negative BARE LYMPHOCYTE SYNDROME, CIITA-RELATED (CIITA) negative BARTTER SYNDROME, BSND-RELATED (BSND) negative BARTTER SYNDROME, KCNJ1-RELATED (KCNJ1) negative BARTTER SYNDROME, SLC12A1-RELATED (SLC12A1) negative BATTEN DISEASE, CLN3-RELATED (CLN3) negative BERNARD-SOULIER SYNDROME, TYPE A1 (GP1BA) negative BERNARD-SOULIER SYNDROME, TYPE C (GP9) negative

BETA-HEMOGLOBINOPATHIES (HBB) negative BETA-KETOTHIOLASE DEFICIENCY (ACAT1) negative BETA-MANNOSIDOSIS (MANBA) negative

BETA-UREIDOPROPIONASE DEFICIENCY (UPB1) negative BILATERAL FRONTOPARIETAL POLYMICROGYRIA (GPR56) negative

BIOTINIDASE DEFICIENCY (BTD) negative

BIOTIN-THIAMINE-RESPONSIVE BASAL GANGLIA DISEASE (BTBGD) (SLC19A3) negative

BLOOM SYNDROME (*BLM*) negative BRITTLE CORNEA SYNDROME 1 (*ZNF469*) negative BRITTLE CORNEA SYNDROME 2 (*PRDM5*) negative

C CANAVAN DISEASE (ASPA) negative

CARBAMOYL PHOSPHATE SYNTHETASE I DEFICIENCY (CPS1) negative CARNITINE DEFICIENCY (SLC22A5) negative
CARNITINE PALMITOYLTRANSFERASE IA DEFICIENCY (CPT1A) negative

CARNITINE PALMITOYLTRANSFERASE II DEFICIENCY (CPT2) negative

CARNITINE-ACYLCARNITINE TRANSLOCASE DEFICIENCY (SLC25A20) negative CARPENTER SYNDROME (RAB23) negative CARTILAGE-HAIR HYPOPLASIA (RMRP) negative

CATECHOLAMINERGIC POLYMORPHIC VENTRICULAR TACHYCARDIA (CASQ2) negative CD59-MEDIATED HEMOLYTIC ANEMIA (CD59) negative CEP152-RELATED MICROCEPHALY (CEP152) negative

CEREBRAL DYSGENESIS, NEUROPATHY, ICHTHYOSIS, AND PALMOPLANTAR

KERATODERMA (CEDNIK) SYNDROME (\$NAP29) negative CEREBROTENDINOUS XANTHOMATOSIS (CYP27A1) negative

CHARCOT-MARIE-TOOTH DISEASE, RECESSIVE INTERMEDIATE C (PLEKHG5) negative

CHARCOT-MARIE-TOOTH-DISEASE, TYPE 4D (NDRG1) negative CHEDIAK-HIGASHI SYNDROME (LYST) negative CHOREOACANTHOCYTOSIS (VPS13A) negative

CHRONIC GRANULOMATOUS DISEASE, CYBA-RELATED (CYBA) negative CHRONIC GRANULOMATOUS DISEASE, NCF2-RELATED (NCF2) negative CILIOPATHIES, RPGRIP1L-RELATED (RPGRIP1L) negative

CITRIN DEFICIENCY (SLC25A13) negative

CITRIN DEFICIENCY (SLC25A13) negative
CITRULLINEMIA, TYPE 1 (ASS1) negative
CLN10 DISEASE (CT5D) negative
COHEN SYNDROME (VPS13B) negative
COL11A2-RELATED CONDITIONS (COL11A2) see first page
COMBINED MALONIC AND METHYLMALONIC ACIDURIA (ACSF3) negative
COMBINED OXIDATIVE PHOSPHORYLATION DEFICIENCY 1 (GFM1) negative
COMBINED OXIDATIVE PHOSPHORYLATION DEFICIENCY 3 (TSFM) negative

COMBINED PITUITARY HORMONE DEFICIENCY 1 (POU1F1) negative COMBINED PITUITARY HORMONE DEFICIENCY-2 (PROP1) negative

CONGENITAL ADRENAL HYPERPLASIA, 11-BETA-HYDROXYLASE DEFICIENCY

(CYP11B1) negative
CONGENITAL ADRENAL HYPERPLASIA, 17-ALPHA-HYDROXYLASE DEFICIENCY

(CYP17A1) negative CONGENITAL ADRENAL HYPERPLASIA, 21-HYDROXYLASE DEFICIENCY

(CYP21A2) negative
CONGENITAL ADRENAL INSUFFICIENCY, CYP11A1-RELATED (CYP11A1) negative
CONGENITAL AMEGAKARYOCYTIC THROMBOCYTOPENIA (MPL) negative

CONGENITAL CHRONIC DIARRHEA (DGAT1) negative

CONGENITAL DISORDER OF GLYCOSYLATION TYPE 1, ALG1-RELATED (ALG1) negative CONGENITAL DISORDER OF GLYCOSYLATION, TYPE 1A, PMM2-Related (PMM2) negative

CONGENITAL DISORDER OF GLYCOSYLATION, 1YPE 1A, PMM2-Related (
CONGENITAL DISORDER OF GLYCOSYLATION, TYPE 1B (MPI) negative
CONGENITAL DISORDER OF GLYCOSYLATION, TYPE 1C (ALG6) negative
CONGENITAL DYSERYTHROPOIETIC ANEMIA TYPE 2 (SEC23B) negative
CONGENITAL FINNISH NEPHROSIS (NPHS1) negative

CONGENITAL HYDROCEPHALUS 1 (CCDC88C) negative
CONGENITAL HYPERINSULINISM, KCNJ11-Related (KCNJ11) negative
CONGENITAL INSENSITIVITY TO PAIN WITH ANHIDROSIS ( CIPA ) (NTRK1) negative
CONGENITAL MYASTHENIC SYNDROME, CHAT-RELATED (CHAT) negative CONGENITAL MYASTHENIC SYNDROME, CHRNE-RELATED (CHRNE) negative CONGENITAL MYASTHENIC SYNDROME, COLQ-RELATED (COLQ) negative CONGENITAL MYASTHENIC SYNDROME, DOK7-RELATED (DOK7) negative

CONGENITAL MYSTHENIC SYNDROME, RAPSN-RELATED (RAPSN) negative CONGENITAL NEPHROTIC SYNDROME, PLCE1-RELATED (PLCE1) negative CONGENITAL NEUTROPENIA, G6PC3-RELATED (G6PC3) negative

CONGENITAL NEUTROPENIA, HAX1-RELATED (HAX1) negative CONGENITAL NEUTROPENIA, VPS45-RELATED (VPS45) negative CONGENITAL SECRETORY CHLORIDE DIARRHEA 1 (SLC26A3) negative CORNEAL DYSTROPHY AND PERCEPTIVE DEAFNESS (SLC4A11) negative

CORTICOSTERONE METHYLOXIDASE DEFICIENCY (CYP11B2) negative

COSTEFF SYNDROME (3-METHYLGLUTACONIC ACIDURIA, TYPE 3) (OPA3) negative CRB1-RELATED RETINAL DYSTROPHIES (CRB1) negative

CYSTIC FIBROSIS (CFTR) negative



Patient Name: CB 587 **Test Information** 

Ordering Physician: MD David Prescott

Crvobio Ohio

Clinic Information:

Date Of Birth: Case File ID:

Report Date: 06/21/2024



CYSTINOSIS (CTNS) negative CYTOCHROME C OXIDASE DEFICIENCY, PET100-RELATED (PET100) negative CYTOCHROME P450 OXIOREDUCTASE DEFICIENCY (POR) negative

D-BIFUNCTIONAL PROTEIN DEFICIENCY (HSD17B4) negative DEAFNESS, AUTOSOMAL RECESSIVE 77 (LOXHD1) negative DIHYDROPTERIDINE REDUCTASE (DHPR) DEFICIENCY (QDPR) negative DIHYDROPYRIMIDINE DEHYDROGENASE DEFICIENCY (DPYD) negative DONNAI-BARROW SYNDROME (LRP2) negative
DUBIN-JOHNSON SYNDROME (ABCC2) negative
DYSKERATOSIS CONGENITA SPECTRUM DISORDERS (TERT) negative DYSKERATOSIS CONGENITA, RTEL1-RELATED (RTEL1) negative

DYSTROPHIC EPIDERMOLYSIS BULLOSA, COL7A1-Related (COL7A1) negative

E
EARLY INFANTILE EPILEPTIC ENCEPHALOPATHY, CAD-RELATED (CAD) negative
EHLERS-DANLOS SYNDROME TYPE VI (PLOD1) see first page
EHLERS-DANLOS SYNDROME, CLASSIC-LIKE, TNXB-RELATED (TNXB) negative
EHLERS-DANLOS SYNDROME, TYPE VII C (ADAMTS2) negative
ELLIS-VAN CREVELD SYNDROME, EVC2-RELATED (EVC2) negative
ELLIS-VAN CREVELD SYNDROME, EVC2-RELATED (EVC) negative
ENHANCED S-CONE SYNDROME (NR2E3) negative
EPIMERASE DEFICIENCY (GALACTOSEMIA TYPE III) (GALE) negative
EPIPHYSEAL DYSPLASIA, MULTIPLE, T/DESBUQUOIS DYSPLASIA 1 (CANT1) negative
ERCC6-RELATED DISORDERS (ERCC6) negative ERCC8-RELATED DISORDERS (ERCC8) negative

ETHYLMALONIC ENCEPHALOPATHY (ETHE1) negative

FACTOR XI DEFICIENCY (F11) negative
FAMILIAL DYSAUTONOMIA (IKBKAP) negative
FAMILIAL HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS, PRF1-RELATED (PRF1) negative FAMILIAL HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS, STX11-RELATED (STX11) negative FAMILIAL HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS, STXBP2-RELATED

(STXBP2) negative
FAMILIAL HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS, UNC13D-RELATED (UNC13D) negative

FAMILIAL HYPERCHOLESTEROLEMIA, LDLRAP1-RELATED (LDLRAP1) negative FAMILIAL HYPERCHOLESTEROLEMIA, LDLR-RELATED (LDLR) negative

FAMILIAL HYPERINSULINISM, ABCC8-RELATED (ABCC8) negative

FAMILIAL MEDITERRANEAN FEVER (MEFV) negative FAMILIAL NEPHROGENIC DIABETES INSIPIDUS, AQP2-RELATED (AQP2) negative

FAMILIAL NEPHROGENIC DIABETES INSTIPIDUS, A FANCONI ANEMIA, GROUP A (FANCA) negative FANCONI ANEMIA, GROUP C (FANCC) negative FANCONI ANEMIA, GROUP D2 (FANCD2) negative FANCONI ANEMIA, GROUP E (FANCE) negative FANCONI ANEMIA, GROUP F (FANCF) negative FANCONI ANEMIA, GROUP G (FANCG) negative FANCONI ANEMIA, GROUP I (FANCI) negative FANCONI ANEMIA, GROUP J (BRIP1) negative FANCONI ANEMIA, GROUP L (FANCL) negative FARBER LIPOGRANULOMATOSIS (ASAH1) negative FOVEAL HYPOPLASIA (SLC38A8) negative

FRASER SYNDROME 3, GRIP1-RELATED (GRIP1) negative FRASER SYNDROME, FRAS1-RELATED (FRAS1) negative FRASER SYNDROME, FREM2-RELATED (FREM2) negative

FRIEDREICH ATAXIA (FXN) negative
FRIEDREICH ATAXIA (FXN) negative
FRUCTOSE-1,6-BISPHOSPHATASE DEFICIENCY (FBP1) negative
FUCOSIDOSIS, FUCA1-RELATED (FUCA1) negative
FUMARASE DEFICIENCY (FH) negative

GABA-TRANSAMINASE DEFICIENCY (ABAT) negative GALACTOKINASE DEFICIENCY ( GALACTOSEMIA, TYPE II ) (GALK1) negative GALACTOSEMIA (GALT) negative GALACTOSIALIDOSIS (CTSA) negative GAUCHER DISEASE (GBA) negative

GCH1-RELATED CONDITIONS (GCH1) negative GDF5-RELATED CONDITIONS (GDF5) negative GERODERMA OSTEODYSPLASTICA (GORAB) negative GITELMAN SYNDROME (SLC12A3) negative

GLANZMANN THROMBASTHENIA (ITGB3) negative GLUTARIC ACIDEMIA, TYPE 1 (GCDH) negative GLUTARIC ACIDEMIA, TYPE 2A (ETFA) negative

GLUTARIC ACIDEMIA, TYPE 2B (ETFB) negative GLUTARIC ACIDEMIA, TYPE 2C (ETFDH) negative GLUTATHIONE SYNTHETASE DEFICIENCY (GSS) negative

GLYCINE ENCEPHALOPATHY, AMT-RELATED (AMT) negative

GLYCINE ENCEPHALOPATHY, GLDC-RELATED (GLDC) negative GLYCOGEN STORAGE DISEASE TYPE 5 ( McArdle Disease ) (PYGM) negative

GLYCOGEN STORAGE DISEASE TYPE IXB (PHKB) negative GLYCOGEN STORAGE DISEASE TYPE IXC (PHKG2) negative GLYCOGEN STORAGE DISEASE, TYPE 1a (G6PC) negative GLYCOGEN STORAGE DISEASE, TYPE 1b (SLC37A4) negative GLYCOGEN STORAGE DISEASE, TYPE 2 (POMPE DISEASE) (GAA) negative GLYCOGEN STORAGE DISEASE, TYPE 3 (AGL) negative GLYCOGEN STORAGE DISEASE, TYPE 4 (GBE1) negative GLYCOGEN STORAGE DISEASE, TYPE 7 (PFKM) negative GRACILE SYNDROME (BCS1L) negative GUANIDINOACETATE METHYLTRANSFERASE DEFICIENCY (GAMT) negative

HARLEQUIN ICHTHYOSIS (ABCA12) negative HEME OXYGENASE 1 DEFICIENCY (HMOX1) negative HEMOCHROMATOSIS TYPE 2A (*HFE2*) negative
HEMOCHROMATOSIS, TYPE 3, TFR2-Related (*TFR2*) negative
HEPATOCEREBRAL MITOCHONDRIAL DNA DEPLETION SYNDROME, MPV17-RELATED

HEPATOCEREBRAL MITTOCHORDING BOTTON B

HEREDITARY SPASTIC PARAPLEGIA, CYP7B1-RELATED (CYP7B1) negative HERMANSKY-PUDLAK SYNDROME, AP3B1-RELATED (AP3B1) negative HERMANSKY-PUDLAK SYNDROME, BLOC1S3-RELATED (BLOC1S3) negative

HERMANSKY-PUDLAK SYNDROME, BLOC1S6-RELATED (BLOC1S6) negative HERMANSKY-PUDLAK SYNDROME, HPS1-RELATED (HPS1) negative HERMANSKY-PUDLAK SYNDROME, HPS3-RELATED (HPS3) negative

HERMANSKY-PUDLAK SYNDROME, HPS4-RELATED (HPS4) negative HERMANSKY-PUDLAK SYNDROME, HPS5-RELATED (HPS5) negative HERMANSKY-PUDLAK SYNDROME, HPS6-RELATED (HPS6) negative

HOLOCARBOXYLASE SYNTHETASE DEFICIENCY (HLCS) negative

HOLOCARBOXYLASE SYNTHETASE DEFICIENCY (HLCS) negative HOMOCYSTINURIA AND MEGALOBLASTIC ANEMIA TYPE CBLG (MTR) negative HOMOCYSTINURIA, DUE TO DEFICIENCY OF MTHFR (MTHFR) negative HOMOCYSTINURIA, CBS-RELATED (CBS) negative HOMOCYSTINURIA, Type cblE (MTRR) negative HYDROLETHALUS SYNDROME (HYLS1) negative HYPER-IGM IMMUNODEFICIENCY (CD40) negative HYPERORNITHINEMIA-HYPERAMMONEMIA-HOMOCITRULLINURIA (HHH SYNDROME)

(SLC25A15) negative

HYPERPHOSPHATEMIC FAMILIAL TUMORAL CALCINOSIS, GALNT3-RELATED

(GALNT3) negative

HYPOMYELINATING LEUKODYSTROPHY 12 (VPS11) negative

HYPOPHOSPHATASIA, ALPL-RELATED (ALPL) negative

IMERSLUND-GRÄSBECK SYNDROME 2 (AMN) negative IMMUNODEFICIENCY-CENTROMERIC INSTABILITY-FACIAL ANOMALIES (ICF) SYNDROME, DNMT3B-RELATED (DNMT3B) negative

IMMUNODEFICIENCY-CENTROMERIC INSTABILITY-FACIAL ANOMALIES (ICF)

SYNDROME, ZBTB24-RELATED (ZBTB24) negative INCLUSION BODY MYOPATHY 2 (GNE) negative INFANTILE CEREBRAL AND CEREBELLAR ATROPHY (MED17) negative

INFANTILE NEPHRONOPHTHISIS (INVS) negative INFANTILE NEUROAXONAL DYSTROPHY (PLA2G6) negative ISOLATED ECTOPIA LENTIS (ADAMTSL4) negative

ISOLATED SULFITE OXIDASE DEFICIENCY (SUOX) negative

ISOLATED THYROID-STIMULATING HORMONE DEFICIENCY (TSHB) negative ISOVALERIC ACIDEMIA (IVD) negative

JOHANSON-BLIZZARD SYNDROME (*UBR1*) negative JOUBERT SYNDROME 2 / MECKEL SYNDROME 2 (TMEM216) negative JOUBERT SYNDROME AND RELATED DISORDERS (JSRD), TMEM67-RELATED

(TMEM67) negative JOUBERT SYNDROME, AHI1-RELATED (AHI1) negative JOUBERT SYNDROME, ARL13B-RELATED (ARL13B) negative

JOUBERT SYNDROME, B9D1-RELATED (B9D1) negative
JOUBERT SYNDROME, B9D2-RELATED (B9D2) negative
JOUBERT SYNDROME, C2CD3-RELATED/OROFACIODIGITAL SYNDROME 14

JOUBERT SYNDROME, CC2D2A-RELATED/COACH SYNDROME (CC2D2A) negative
JOUBERT SYNDROME, CEP104-RELATED (CEP104) negative
JOUBERT SYNDROME, CEP120-RELATED/SHORT-RIB THORACIC DYSPLASIA 13 WITH OR

WITHOUT POLYDACTYLY (CEP120) negative
JOUBERT SYNDROME, CEP41-RELATED (CEP41) negative

JOUBERT SYNDROME, CPLANE1-RELATED / OROFACIODIGITAL SYNDROME 6

JOUBERT SYNDROME, CPLANEI-RELATED / OROFACIODIGITAL SYNDROME 6 (CPLANE1) negative
JOUBERT SYNDROME, CSPP1-RELATED (CSPP1) negative
JOUBERT SYNDROME, INPP5E-RELATED (INPP5E) negative
JUNCTIONAL EPIDERMOLYSIS BULLOSA, COL17A1-RELATED (COL17A1) negative

JUNCTIONAL EPIDERMOLYSIS BULLOSA, ITGA6-RELATED (ITGA6) negative JUNCTIONAL EPIDERMOLYSIS BULLOSA, ITGB4-RELATED (ITGB4) negative JUNCTIONAL EPIDERMOLYSIS BULLOSA, LAMB3-RELATED (LAMB3) negative



Patient Name: CB 587 **Test Information** 

Ordering Physician: MD David Prescott

Crvobio Ohio

Clinic Information:

Date Of Birth: Case File ID:

Report Date: 06/21/2024



JUNCTIONAL EPIDERMOLYSIS BULLOSA, LAMC2-RELATED (LAMC2) negative JUNCTIONAL EPIDERMOLYSIS BULLOSA/LARYNGOONYCHOCUTANEOUS SYNDROME, LAMA3-RELATED (LAMA3) negative

KRABBE DISEASE (GALC) negative

LAMELLAR ICHTHYOSIS, TYPE 1 (TGM1) negative LARON SYNDROME (GHR) negative LEBER CONGENITAL AMAUROSIS 2 (RPE65) negative LEBER CONGENITAL AMAUROSIS TYPE AIPL1 (AIPL1) negative LEBER CONGENITAL AMAUROSIS TYPE GUCY2D (GUCY2D) negative LEBER CONGENITAL AMAUROSIS TYPE TULP1 (TULP1) negative
LEBER CONGENITAL AMAUROSIS, IQCB1-RELATED/SENIOR-LOKEN SYNDROME 5 (IQCB1) negative

LEBER CONGENITAL AMAUROSIS, TYPE CEP290 (CEP290) negative LEBER CONGENITAL AMAUROSIS, TYPE LCA5 (LCA5) negative LEBER CONGENITAL AMAUROSIS, TYPE RDH12 (RDH12) negative

LEIGH SYNDROME, FRENCH-CANADIAN TYPE (LRPPRC) negative LETHAL CONGENITAL CONTRACTURE SYNDROME 1 (GLE1) negative LEUKOENCEPHALOPATHY WITH VANISHING WHITE MATTER (EIF2B5) negative

LEUKOENCEPHALOPATHY WITH VANISHING WHITE MATTER, EIF2B1-RELATED (EIF2B1) negative LEUKOENCEPHALOPATHY WITH VANISHING WHITE MATTER, EIF2B2-RELATED

(EIF2B2) negative

LEUKOENCEPHALOPATHY WITH VANISHING WHITE MATTER, EIF2B3-RELATED (EIF2B3) negative LEUKOENCEPHALOPATHY WITH VANISHING WHITE MATTER, EIF2B4-RELATED

(EIF2B4) negative

LIG4 SYNDROME (LIG4) negative

LIMB-GIRDLE MUSCULAR DYSTROPHY TYPE 8 (*TRIM32*) negative LIMB-GIRDLE MUSCULAR DYSTROPHY, TYPE 2A (*CAPN3*) negative LIMB-GIRDLE MUSCULAR DYSTROPHY, TYPE 2B (*DYSF*) negative

LIMB-GIRDLE MUSCULAR DYSTROPHY, TYPE 2C (SGCG) negative LIMB-GIRDLE MUSCULAR DYSTROPHY, TYPE 2D (SGCA) negative LIMB-GIRDLE MUSCULAR DYSTROPHY, TYPE 2E (SGCB) negative

LIMB-GIRDLE MUSCULAR DYSTROPHY, TYPE 2F (SGCD) negative
LIMB-GIRDLE MUSCULAR DYSTROPHY, TYPE 2I (FKRP) negative
LIPOAMIDE DEHYDROGENASE DEFICIENCY (DIHYDROLIPOAMIDE DEHYDROGENASE

DEFICIENCY) (DLD) negative

LIPOID ADRENAL HYPERPLASIA (STAR) negative
LIPOPROTEIN LIPASE DEFICIENCY (LPL) negative
LONG CHAIN 3-HYDROXYACYL-COA DEHYDROGENASE DEFICIENCY (HADHA) negative LRAT-RELATED CONDITIONS (LRAT) negative

LUNG DISEASE, IMMUNODEFICIENCY, AND CHROMOSOME BREAKAGE SYNDROME (LICS) (NSMCE3) negative

LYSINURIC PROTEIN INTOLERANCE (SLC7A7) negative

MALONYL-COA DECARBOXYLASE DEFICIENCY (MLYCD) negative MAPLE SYRUP URINE DISEASE, TYPE 1A (BCKDHA) negative MAPLE SYRUP URINE DISEASE, TYPE 1B (BCKDHB) negative MAPLE SYRUP URINE DISEASE, TYPE 2 (DBT) negative MCKUSICK-KAUFMAN SYNDROME (MKKS) negative MECKEL SYNDROME 7/NEPHRONOPHTHISIS 3 (NPHP3) negative MECKEL-GRUBER SYNDROME, TYPE 1 (MKS1) negative MECR-RELATED NEUROLOGIC DISORDER (MECR) negative MEDIUM CHAIN ACYL-CoA DEHYDROGENASE DEFICIENCY (ACADM) negative MEDNIK SYNDROME (AP1S1) negative MEGALENCEPHALIC LEUKOENCEPHALOPATHY WITH SUBCORTICAL CYSTS

(MLC1) negative
MEROSIN-DEFICIENT MUSCULAR DYSTROPHY (LAMA2) negative
METABOLIC ENCEPHALOPATHY AND ARRHYTHMIAS, TANGO2-RELATED

(TANGO2) negative METACHROMATIC LEUKODYSTROPHY, ARSA-RELATED (ARSA) negative
METACHROMATIC LEUKODYSTROPHY, PSAP-RELATED (PSAP) negative
METHYLMALONIC ACIDEMIA AND HOMOCYSTINURIA TYPE CBLF (LMBRD1) negative

METHYLMALONIC ACIDEMIA, MCEE-RELATED (MCEE) negative

METHYLMALONIC ACIDURIA AND HOMOCYSTINURIA, TYPE CBLC (MMACHC) negative METHYLMALONIC ACIDURIA AND HOMOCYSTINURIA, TYPE CBLD (MMADHC) negative

METHYLMALONIC ACIDURIA, MMAA-RELATED (MMAA) negative

METHYLMALONIC ACIDURIA, MMAB-RELATED (MMAB) negative
METHYLMALONIC ACIDURIA, MMAB-RELATED (MMAB) negative
METHYLMALONIC ACIDURIA, TYPE MUT(0) (MUT) negative
MEVALONIC KINASE DEFICIENCY (MVK) negative
MICROCEPHALIC OSTEODYSPLASTIC PRIMORDIAL DWARFISM TYPE II (PCNT) negative
MICROPHTHALMIA / ANOPHTHALMIA, VSX2-RELATED (VSX2) negative
MITOCHONDRIAL COMPLEX 1 DEFICIENCY, ACAD9-RELATED (ACAD9) negative

MITOCHONDRIAL COMPLEX 1 DEFICIENCY, NDUFAF5-RELATED (NDUFAF5) negative

MITOCHONDRIAL COMPLEX 1 DEFICIENCY, NDUFS6-RELATED (NDUFS6) negative MITOCHONDRIAL COMPLEX I DEFICIENCY, NUCLEAR TYPE 1 (NDUFS4) negative

MITOCHONDRIAL COMPLEX I DEFICIENCY, NUCLEAR TYPE 10 (NDUFAF2) negative MITOCHONDRIAL COMPLEX I DEFICIENCY, NUCLEAR TYPE 17 (NDUFAF6) negative MITOCHONDRIAL COMPLEX I DEFICIENCY, NUCLEAR TYPE 19 (FOXRED1) negative MITOCHONDRIAL COMPLEX I DEFICIENCY, NUCLEAR TYPE 3 (NDUFS7) negative MITOCHONDRIAL COMPLEX I DEFICIENCY, NUCLEAR TYPE 4 (NDUFV1) negative MITOCHONDRIAL COMPLEX IV DEFICIENCY, NUCLEAR TYPE 2, SCO2-RELATED (SCO2) negative

MITOCHONDRIAL COMPLEX IV DEFICIENCY, NUCLEAR TYPE 6 (COX15) negative MITOCHONDRIAL DNA DEPLETION SYNDROME 2 (TK2) negative MITOCHONDRIAL DNA DEPLETION SYNDROME 3 (DGUOK) negative MITOCHONDRIAL MYOPATHY AND SIDEROBLASTIC ANEMIA (MLASA1) (PUS1) negative MITOCHONDRIAL TRIFUNCTIONAL PROTEIN DEFICIENCY, HADHB-RELATED (HADHB) negative

MOLYBDENUM COFACTOR DEFICIENCY TYPE B (MOCS2) negative

MOLYBDENUM COFACTOR DEFICIENCY, TYPE A (MOCS1) negative MUCOLIPIDOSIS II/III A (GNPTAB) negative MUCOLIPIDOSIS III GAMMA (GNPTG) negative

MUCOLIPIDOSIS, TYPE IV (MCOLN1) negative
MUCOPOLYSACCHARIDOSIS, TYPE I ( HURLER SYNDROME ) (IDUA) negative
MUCOPOLYSACCHARIDOSIS, TYPE III A ( SANFILIPPO A ) (SGSH) negative MUCOPOLYSACCHARIDOSIS, TYPE III A (SANFILIPPO A ) (SGSH) negative MUCOPOLYSACCHARIDOSIS, TYPE III B (SANFILIPPO B) (NAGLU) negative MUCOPOLYSACCHARIDOSIS, TYPE III C (SANFILIPPO C) (HGSNAT) negative MUCOPOLYSACCHARIDOSIS, TYPE III D (SANFILIPPO D) (GNS) negative MUCOPOLYSACCHARIDOSIS, TYPE IV A (MORQUIO SYNDROME) (GALNS) negative

MUCOPOLYSACCHARIDOSIS, TYPE IV B/GM1 GANGLIOSIDOSIS (GLB1) negative MUCOPOLYSACCHARIDOSIS, TYPE IX (HYAL1) negative MUCOPOLYSACCHARIDOSIS, TYPE VI ( MAROTEAUX-LAMY ) (ARSB) negative

MUCOPOLYSACCHARIDOSIS, TYPE VII (GUSB) negative

MULIBREY NANISM (TR/M37) negative
MULTIPLE PTERYGIUM SYNDROME, CHRNG-RELATED/ESCOBAR SYNDROME (CHRNG) negative

MULTIPLE SULFATASE DEFICIENCY (SUMF1) negative MUSCLE-EYE-BRAIN DISEASE, POMGNT1-RELATED (POMGNT1) negative MUSCULAR DYSTROPHY-DYSTROGLYCANOPATHY (RXYLT1) negative MUSK-RELATED CONGENITAL MYASTHENIC SYNDROME (MUSK) negative MYONEUROGASTROINTESTINAL ENCEPHALOPATHY (MNGIE) (TYMP) negative MYOTONIA CONGENITA (CLCN1) negative

N-ACETYLGLUTAMATE SYNTHASE DEFICIENCY (NAGS) negative NEMALINE MYOPATHY, NEB-RELATED (NEB) negative NEPHRONOPHTHISIS 1 (NPHP1) negative NEURONAL CERCID LIPOFUSCINOSIS, CLN5-RELATED (CLN5) negative NEURONAL CERCID LIPOFUSCINOSIS, CLN6-RELATED (CLN6) negative NEURONAL CERCID LIPOFUSCINOSIS, CLN8-RELATED (CLN8) negative NEURONAL CEROID LIPOFUSCINOSIS, MFSD8-RELATED (MFSD8) negative NEURONAL CEROID LIPOFUSCINOSIS, PPT1-RELATED (PPT1) negative NEURONAL CEROID LIPOFUSCINOSIS, TPP1-RELATED (TPP1) negative NGLY1-CONGENITAL DISORDER OF GLYCOSYLATION (NGLY1) negative NIEMANN-PICK DISEASE, TYPE C1 / D (NPC1) negative NIEMANN-PICK DISEASE, TYPE C2 (NPC2) negative NIEMANN-PICK DISEASE, TYPES A / B (SMPD1) negative NIJMEGEN BREAKAGE SYNDROME (NBN) negative NON-SYNDROMIC HEARING LOSS, GJB2-RELATED (GJB2) negative NON-SYNDROMIC HEARING LOSS, MYO15A-RELATED (MYO15A) negative NONSYNDROMIC HEARING LOSS, OTOA-RELATED (OTOA) negative NONSYNDROMIC HEARING LOSS, OTOF-RELATED (OTOF) negative NONSYNDROMIC HEARING LOSS, PJVK-RELATED (PJVK) negative NONSYNDROMIC HEARING LOSS, SYNE4-RELATED (SYNE4) negative

NONSYNDROMIC HEARING LOSS, TMC1-RELATED (TMC1) negative NONSYNDROMIC HEARING LOSS, TMPRSS3-RELATED (TMPRSS3) negative NONSYNDROMIC INTELLECTUAL DISABILITY (CC2D1A) negative NORMOPHOSPHATEMIC TUMORAL CALCINOSIS (SAMD9) negative

OCULOCUTANEOUS ALBINISM TYPE IV (SLC45A2) negative OCULOCUTANEOUS ALBINISM TYPE, III (TYRP1) negative OCULOCUTANEOUS ALBINISM, OCA2-RELATED (OCA2) negative OCULOCUTANEOUS ALBINISM, TYPES 1A AND 1B (TYR) negative ODONTO-ONYCHO-DERMAL DYSPLASIA / SCHOPF-SCHULZ-PASSARGE SYNDROME (WNT10A) negative
OMENN SYNDROME, RAG2-RELATED (RAG2) negative ORNITHINE AMINOTRANSFERASE DEFICIENCY (OAT) negative OSTEOGENESIS IMPERFECTA TYPE VIII (*CRTAP*) negative OSTEOGENESIS IMPERFECTA TYPE VIII (*P3H1*) negative OSTEOGENESIS IMPERFECTA TYPE XI (FKBP10) negative OSTEOGENESIS IMPERFECTA TYPE XIII (BMP1) negative OSTEOPETROSIS, INFANTILE MALIGNANT, TCIRG1-RELATED (TCIRG1) negative OSTEOPETROSIS, OSTM1-RELATED (OSTM1) negative

PANTOTHENATE KINASE-ASSOCIATED NEURODEGENERATION (PANK2) negative



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PAPILLON LEFÈVRE SYNDROME (CTSC) negative PARKINSON DISEASE 15 (FBXO7) negative PENDRED SYNDROME (SLC26A4) negative PERLMAN SYNDROME (DIS3L2) negative
PGM3-CONGENITAL DISORDER OF GLYCOSYLATION (PGM3) negative PHENYLKETONURIA (PAH) negative
PIGN-CONGENITAL DISORDER OF GLYCOSYLATION (PGM3) negative
PIGN-CONGENITAL DISORDER OF GLYCOSYLATION (PIGN) negative
PITUITARY HORMONE DEFICIENCY, COMBINED 3 (LHX3) negative
POLG-RELATED DISORDERS (POLG) negative POLYCYSTIC KIDNEY DISEASE, AUTOSOMAL RECESSIVE (PKHD1) negative PONTOCEREBELLAR HYPOPLASIA, EXOSC3-RELATED (EXOSC3) negative PONTOCEREBELLAR HYPOPLASIA, RARS2-RELATED (RARS2) negative

PONTOCEREBELLAR HYPOPLASIA, RARSZ-RELAI ED (RARSZ) negative PONTOCEREBELLAR HYPOPLASIA, TSEN2-RELATED (TSEN2) negative PONTOCEREBELLAR HYPOPLASIA, TSEN54-RELATED (TSEN54) negative PONTOCEREBELLAR HYPOPLASIA, TYPE 1A (VRK1) negative PONTOCEREBELLAR HYPOPLASIA, TYPE 2D (SEPSECS) negative PONTOCEREBELLAR HYPOPLASIA, VPS53-RELATED (VPS53) negative PRIMARY CILIARY DYSKINESIA, CCDC103-RELATED (CCDC103) negative PRIMARY CILIARY DYSKINESIA, CCDC39-RELATED (CCDC39) negative PRIMARY CILIARY DYSKINESIA, DNAH11-RELATED (DNAH11) negative PRIMARY CILIARY DYSKINESIA, DNAH5-RELATED (DNAH5) negative PRIMARY CILIARY DYSKINESIA, DNAI1-RELATED (DNAI1) negative PRIMARY CILIARY DYSKINESIA, DNAI2-RELATED (DNAI2) negative

PRIMARY CILLIARY DYSKINESIA, DNAI2-RELATED (DNAI2) negative
PRIMARY CONGENITAL GLAUCOMA/PETERS ANOMALY (CYP1B1) negative
PRIMARY HYPEROXALURIA, TYPE 1 (AGXT) negative
PRIMARY HYPEROXALURIA, TYPE 2 (GRHPR) negative
PRIMARY HYPEROXALURIA, TYPE 3 (HOGA1) negative
PRIMARY MICROCEPHALY 1, AUTOSOMAL RECESSIVE (MCPH1) negative
PROGRESSIVE EARLY-ONSET ENCEPHALOPATHY WITH BRAIN ATROPHY AND THIN
CORDILIS CALLOS UM (TRCI) peretting.

PROGRESSIVE EARLY-ONSET ENCEPARLOPATHY WITH BRAIN ATROPHY AND THIN CORPUS CALLOSUM (TBCD) negative PROGRESSIVE FAMILIAL INTRAHEPATIC CHOLESTASIS, ABCB4-RELATED (ABCB4) negative PROGRESSIVE FAMILIAL INTRAHEPATIC CHOLESTASIS, TYPE 1 (PFIC1) (ATP8B1) negative PROGRESSIVE FAMILIAL INTRAHEPATIC CHOLESTASIS, TYPE 2 (ABCB11) negative PROGRESSIVE FAMILIAL INTRAHEPATIC CHOLESTASIS, TYPE 4 (PFIC4) (TJP2) negative PROGRESSIVE PSEUDORHEUMATOID DYSPLASIA (CCN6) negative PROLIDASE DEFICIENCY (PEPD) negative PROPIONIC ACIDEMIA, PCCA-RELATED (PCCA) negative

PROPIONIC ACIDEMIA, PCCB-RELATED (PCCB) negative
PSEUDOCHOLINESTERASE DEFICIENCY (BCHE) negative
PSEUDOXANTHOMA ELASTICUM (ABCC6) negative
PTERIN-4 ALPHA-CARBINOLAMINE DEHYDRATASE (PCD) DEFICIENCY (PCBD1) negative

PYCNODYSOSTOSIS (CT5K) negative
PYRIDOXAL 5'-PHOSPHATE-DEPENDENT EPILEPSY (PNPO) negative
PYRIDOXINE-DEPENDENT EPILEPSY (ALDH7A1) negative

PYRUVATE CARBOXYLASE DEFICIENCY (PC) negative

PYRUVATE DEHYDROGENASE DEFICIENCY, PDHB-RELATED (PDHB) negative

REFSUM DISEASE, PHYH-RELATED (PHYH) negative RENAL TUBULAR ACIDOSIS AND DEAFNESS, ATP6V1B1-RELATED (ATP6V1B1) negative RENAL TUBULAR ACIDOSIS, PROXIMAL, WITH OCULAR ABNORMALITIES AND MENTAL RETARDATION (SLC4A4) negative RETINITIS PIGMENTOSA 25 (EYS) negative RETINITIS PIGMENTOSA 26 (CERKL) negative RETINITIS PIGMENTOSA 28 (FAM161A) negative RETINITIS PIGMENTOSA 36 (PRCD) negative RETINITIS PIGMENTOSA 59 (DHDDS) negative RETINITIS PIGMENTOSA 62 (MAK) negative RHIZOMELIC CHONDRODYSPLASIA PUNCTATA, TYPE 1 (PEX7) negative RHIZOMELIC CHONDRODYSPLASIA PUNCTATA, TYPE 2 (GNPAT) negative RHIZOMELIC CHONDRODYSPLASIA PUNCTATA, TYPE 3 (AGPS) negative RLBP1-RELATED RETINOPATHY (RLBP1) negative ROBERTS SYNDROME (ESCO2) negative RYR1-RELATED CONDITIONS (RYR1) negative

SALLA DISEASE (SLC17A5) negative SANDHOFF DISEASE (HEXB) negative SCHIMKE IMMUNOOSSEOUS DYSPLASIA (SMARCAL1) negative SCHINDLER DISEASE (NAGA) negative SEGAWA SYNDROME, TH-RELATED (TH) negative SENIOR-LOKEN SYNDROME 4/NEPHRONOPHTHISIS 4 (NPHP4) negative SEPIAPTERIN REDUCTASE DEFICIENCY (SPR) negative
SEVERE COMBINED IMMUNODEFICIENCY (SCID), CD3D-RELATED (CD3D) negative
SEVERE COMBINED IMMUNODEFICIENCY (SCID), CD3E-RELATED (CD3E) negative SEVERE COMBINED IMMUNODEFICIENCY (SCID), FOXN1-RELATED (FOXN1 negative SEVERE COMBINED IMMUNODEFICIENCY (SCID), IKBKB-RELATED (IKBKB) negative SEVERE COMBINED IMMUNODEFICIENCY (SCID), IL7R-RELATED (IL7R) negative SEVERE COMBINED IMMUNODEFICIENCY (SCID), JAK3-RELATED (JAK3) negative

SEVERE COMBINED IMMUNODEFICIENCY (SCID), PTPRC-RELATED (PTPRC) negative SEVERE COMBINED IMMUNODEFICIENCY (SCID), RAG1-RELATED (RAG1) negative SEVERE COMBINED IMMUNODEFICIENCY, ADA-Related (ADA) negative SEVERE COMBINED IMMUNODEFICIENCY, TYPE ATHABASKAN (DCLRE1C) SHORT-RIB THORACIC DYSPLASIA 3 WITH OR WITHOUT POLYDACTYLY (PVNC2H1) negative
SHWACHMAN-DIAMOND SYNDROME, SBDS-RELATED (SBDS) negative SIALIDOSIS (NEU1) negative SJÖGREN-LARSSON SYNDROME (ALDH3A2) negative SMITH-LEMLI-OPITZ SYNDROME (DHCR7) negative SPASTIC PARAPLEGIA, TYPE 15 (ZFYVE26) negative SPASTIC TETRAPLEGIA, THIN CORPUS CALLOSUM, AND PROGRESSIVE MICROCEPHALY (SPATCCM) (SLC1A4) negative SPG11-RELATED CONDITIONS (SPG11) negative SPINAL MUSCULAR ATROPHY (SMN1) negative SMN1: Two copies; g.27134T>G: absent; the absence of the g.27134T>G variant decreases the chance to be a silent (2+0) carrier.

SPINAL MUSCULAR ATROPHY WITH RESPIRATORY DISTRESS TYPE 1 (IGHMBP2) negative SPINOCEREBELLAR ATAXIA, AUTOSOMAL RECESSIVE 10 (ANO10) negative SPINOCEREBELLAR ATAXIA, AUTOSOMAL RECESSIVE 12 (WWOX) negative SPONDYLOCOSTAL DYSOSTOSIS 1 (DLL3) negative

SPONDYLOTHORACIC DYSOSTOSIS, MESP2-Related (MESP2) negative STEEL SYNDROME (COL27A1) negative
STEROID-RESISTANT NEPHROTIC SYNDROME (NPHS2) negative
STUVE-WIEDEMANN SYNDROME (LIFR) negative

SURF1-RELATED CONDITIONS (SURF1) negative SURFACTANT DYSFUNCTION, ABCA3-RELATED (ABCA3) negative

TAY-SACHS DISEASE (HEXA) negative
TBCE-RELATED CONDITIONS (TBCE) negative
THIAMINE-RESPONSIVE MEGALOBLASTIC ANEMIA SYNDROME (SLC19A2) negative THYROID DYSHORMONOGENESIS 1 (SLC5A5) negative THYROID DYSHORMONOGENESIS 2A (TPO) negative THYROID DYSHORMONOGENESIS 3 (TG) negative THYROID DYSHORMONOGENESIS 3 (TG) negative THYROID DYSHORMONOGENESIS 6 (DUOX2) negative

TRANSCOBALAMIN II DEFICIENCY (TCN2) negative TRICHOHEPATOENTERIC SYNDROME, SKIC2-RELATED (SKIC2) negative TRICHOHEPATOENTERIC SYNDROME, TTC37-RELATED (TTC37) negative

TRICHOTHIODYSTROPHY 1/XERODERMA PIGMENTOSUM, GROUP D (ERCC2) negative TRIMETHYLAMINURIA (FMO3) negative TRIPLE A SYNDROME (AAAS) negative

TSHR-RELATED CONDITIONS (TSHR) negative TYROSINEMIA TYPE III (HPD) negative TYROSINEMIA, TYPE 1 (FAH) negative TYROSINEMIA, TYPE 2 (TAT) negative

USHER SYNDROME, TYPE 1B (MYO7A) negative USHER SYNDROME, TYPE 1C (USH1C) negative USHER SYNDROME, TYPE 1D (CDH23) negative
USHER SYNDROME, TYPE 1F (PCDH15) negative
USHER SYNDROME, TYPE 1J/DEAFNESS, AUTOSOMAL RECESSIVE, 48 (CIB2) negative

USHER SYNDROME, TYPE 2A (USH2A) negative USHER SYNDROME, TYPE 2C (ADGRV1) negative USHER SYNDROME, TYPE 3 (CLRN1) negative

VERY LONG-CHAIN ACYL-CoA DEHYDROGENASE DEFICIENCY (ACADVL) negative VICI SYNDROME (EPG5) negative VITAMIN D-DEPENDENT RICKETS, TYPE 1A (CYP27B1) negative VITAMIN D-RESISTANT RICKETS TYPE 2A (VDR) negative VLDLR-ASSOCIATED CEREBELLAR HYPOPLASIA (VLDLR) negative

WALKER-WARBURG SYNDROME, CRPPA-RELATED (CRPPA) negative WALKER-WARBURG SYNDROME, FKTN-RELATED (FKTN) negative WALKER-WARBURG SYNDROME, LARGE1-RELATED (LARGE1) negative WALKER-WARBURG SYNDROME, POMT1-RELATED (POMT1) negative WALKER-WARBURG SYNDROME, POMT2-RELATED (POMT2) negative WARSAW BREAKAGE SYNDROME (DDX11) negative WERNER SYNDROME (WRN) negative
WILSON DISEASE (ATP7B) negative WOLCOTT-RALLISON SYNDROME (EIF2AK3) negative WOLMAN DISEASE (LIPA) negative WOODHOUSE-SAKATI SYNDROME (DCAF17) negative

XERODERMA PIGMENTOSUM VARIANT TYPE (POLH) negative XERODERMA PIGMENTOSUM, GROUP A (XPA) negative XERODERMA PIGMENTOSUM, GROUP C (XPC) negative



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Z
ZELLWEGER SPECTRUM DISORDER, PEX13-RELATED (PEX13) negative
ZELLWEGER SPECTRUM DISORDER, PEX16-RELATED (PEX16) negative
ZELLWEGER SPECTRUM DISORDER, PEX5-RELATED (PEX5) negative
ZELLWEGER SPECTRUM DISORDERS, PEX10-RELATED (PEX10) negative
ZELLWEGER SPECTRUM DISORDERS, PEX110-RELATED (PEX12) negative
ZELLWEGER SPECTRUM DISORDERS, PEX11-RELATED (PEX12) negative
ZELLWEGER SPECTRUM DISORDERS, PEX1-RELATED (PEX11) negative ZELLWEGER SPECTRUM DISORDERS, PEX26-RELATED (PEX26) negative ZELLWEGER SPECTRUM DISORDERS, PEX2-RELATED (PEX2) negative ZELLWEGER SPECTRUM DISORDERS, PEX6-RELATED (PEX6) negative



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# Testing Methodology, Limitations, and Comments:

# Next-generation sequencing (NGS)

Sequencing library prepared from genomic DNA isolated from a patient sample is enriched for targets of interest using standard hybridization capture protocols and PCR amplification (for targets specified below). NGS is then performed to achieve the standards of quality control metrics, including a minimum coverage of 99% of targeted regions at 20X sequencing depth. Sequencing data is aligned to human reference sequence, followed by deduplication, metric collection and variant calling (coding region +/- 20bp). Variants are then classified according to ACMGG/AMP standards of interpretation using publicly available databases including but not limited to ENSEMBL, HGMD Pro, ClinGen, ClinVar, 1000G, ESP and gnomAD. Variants predicted to be pathogenic or likely pathogenic for the specified diseases are reported. It should be noted that the data interpretation is based on our current understanding of the genes and variants at the time of reporting. Putative positive sequencing variants that do not meet internal quality standards or are within highly homologous regions are confirmed by Sanger sequencing or genespecific long-range PCR as needed prior to reporting.

Copy Number Variant (CNV) analysis is limited to deletions involving two or more exons for all genes on the panel, in addition to specific known recurrent singleexon deletions. CNVs of small size may have reduced detection rate. This method does not detect gene inversions, single-exonic and sub-exonic deletions (unless otherwise specified), and duplications of all sizes (unless otherwise specified). Additionally, this method does not define the exact breakpoints of detected CNV events. Confirmation testing for copy number variation is performed by specific PCR, Multiplex Ligation-dependent Probe Amplification (MLPA), next generation sequencing, or other methodology.

This test may not detect certain variants due to local sequence characteristics, high/low genomic complexity, homologous sequence, or allele dropout (PCR-based assays). Variants within noncoding regions (promoter, 5'UTR, 3'UTR, deep intronic regions, unless otherwise specified), small deletions or insertions larger than 25bp, low-level mosaic variants, structural variants such as inversions, and/or balanced translocations may not be detected with this technology.

#### SPECIAL NOTES

For ABCC6, variants in exons 1-9 are not detected due to the presence of regions of high homology.

For CFTR, when the CFTR R117H variant is detected, reflex analysis of the polythymidine variations (5T, 7T and 9T) at the intron 9 branch/acceptor site of the CFTR gene will be performed.

For CYP21A2, targets were enriched using long-range PCR amplification, followed by next generation sequencing. Duplication analysis will only be performed and reported when c.955C>T (p.Q319\*) is detected. Sequencing and CNV analysis may have reduced sensitivity, if variants result from complex rearrangements, in trans with a gene deletion, or CYP21A2 gene duplication on one chromosome and deletion on the other chromosome. This analysis cannot detect sequencing variants located on the CYP21A2 duplicated copy.

For DDX11, only NM 030653.3:c.1763 - 1G > C variant will be analyzed and reported.

For HBA1/HBA2, CNV analysis is offered to detect common deletions of -alpha3.7, -alpha4.2, --MED, --SEA, --FIL, --THAI, --alpha20.5, and/or HS-40.

For OTOA, variants in exons 20 - 28 are not analyzed due to high sequence homology.

For RPGRIP1L, variants in exon 23 are not detected due to assay limitation.

For SAMD9, only p.K1495E variant will be analyzed and reported.

## Friedreich Ataxia (FXN)

The GAA repeat region of the FXN gene is assessed by trinucleotide PCR assay and capillary electrophoresis. Variances of +/-1 repeat for normal alleles and up to +/-3 repeats for premutation alleles may occur. For fully penetrant expanded alleles, the precise repeat size cannot be determined, therefore the approximate allele size is reported. Sequencing and copy number variants are analyzed by next-generation sequencing analysis.

#### Friedreich Ataxia Repeat Categories

Categories	GAA Repeat Sizes
Normal	<34
Premutation	34 - 65
Full	>65



Date Of Birth: Case File ID:

Patient Name: CB 587 **Test Information** 

Ordering Physician: MD David Prescott

Clinic Information: Crvobio Ohio

Report Date: 06/21/2024



# Spinal Muscular Atrophy (SMN1)

The total combined copy number of SMN1 and SMN2 exon 7 is quantified based on NGS read depth. The ratio of SMN1 to SMN2 is calculated based on the read depth of a single nucleotide that distinguishes these two genes in exon 7. In addition to copy number analysis, testing for the presence or absence of a single nucleotide polymorphism (g.27134T>G in intron 7 of SMN1) associated with the presence of a SMN1 duplication allele is performed using NGS

Ethnicity	Two SMN1 copies carrier risk before g.27134T>G testing	Carrier risk after g.27134T	rier risk after g.27134T>G testing	
		g.27134T>G ABSENT	g.27134T>G PRESENT	
Caucasian	1 in 632	1 in 769	1 in 29	
Ashkenazi Jewish	1 in 350	1 in 580	LIKELY CARRIER	
Asian	1 in 628	1 in 702	LIKELY CARRIER	
African-American	1 in 121	1 in 396	1 in 34	
Hispanic	1 in 1061	1 in 1762	1 in 140	

#### Variant Classification

Only pathogenic or likely pathogenic variants are reported. Other variants including benign variants, likely benign variants, variants of uncertain significance, or inconclusive variants identified during this analysis may be reported in certain circumstances. Our laboratory's variant classification criteria are based on the ACMG and internal guidelines and our current understanding of the specific genes. This interpretation may change over time as more information about a gene and/or variant becomes available. Natera and its lab partner(s) may reclassify variants at certain intervals but may not release updated reports without a specific request made to Natera by the ordering provider. Natera may disclose incidental findings if deemed clinically pertinent to the test performed.

# **Negative Results**

A negative carrier screening result reduces the risk for a patient to be a carrier of a specific disease but does not completely rule out carrier status. Please visit https://www.natera.com/panel-option/h-all/ for a table of carrier rates, detection rates, residual risks and promised variants/exons per gene. Carrier rates before and after testing vary by ethnicity and assume a negative family history for each disease screened and the absence of clinical symptoms in the patient. Any patient with a family history for a specific genetic disease will have a higher carrier risk prior to testing and, if the disease-causing mutation in their family is not included on the test, their carrier risk would remain unchanged. Genetic counseling is recommended for patients with a family history of genetic disease so that risk figures based on actual family history can be determined and discussed along with potential implications for reproduction. Horizon carrier screening has been developed to identify the reproductive risks for monogenic inherited conditions. Even when one or both members of a couple screen negative for pathogenic variants in a specific gene, the disease risk for their offspring is not zero. There is still a low risk for the condition in their offspring due to a number of different mechanisms that are not detected by Horizon including, but not limited to, pathogenic variant(s) in the tested gene or in a different gene not included on Horizon, pathogenic variant(s) in an upstream regulator, uniparental disomy, de novo mutation(s), or digenic or polygenic inheritance.

#### Additional Comments

These analyses generally provide highly accurate information regarding the patient's carrier status. Despite this high level of accuracy, it should be kept in mind that there are many potential sources of diagnostic error, including misidentification of samples, polymorphisms, or other rare genetic variants that interfere with analysis. Families should understand that rare diagnostic errors may occur for these reasons.



Patient ID:

**Patient Report** 

Account Number: 34334785

Ordering Physician:



Specimen ID:

Date Collected: 03/12/2024

Date Received: **03/13/2024** 

DOB:

Age: 29

Sex: Male

Date Reported: 03/28/2024

Fasting: Not Given

Ordered Items: Chromosome, Blood, Routine; Count 15-20 cells, 2 Karyotype; Chromosome Blood Routine 88230

Date Collected: 03/12/2024

# Chromosome, Blood, Routine

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Specimen Type <sup>01</sup>	Comment: BL00D			
Cells Counted 01	20			
Cells Analyzed 01	20			
Cells Karyotyped 01	2			
GTG Band Resolution Achieved <sup>01</sup>	500			
Cytogenetic Result <sup>01</sup>	Comment: 46,XY			
Interpretation <sup>01</sup>	revealed a MALE karyotype windled banding pattern in all cells  This result does not experience to rearrangements below the result does not experience to congenital anomalies due to rechnical Component-Processing 34D1008914, 1904 TW Alexande 27709. Medical Director, Angelow Banding Particular Processing Pro	observed. xclude the possibility of sub olution of cytogenetics or other etiologies. essing performed by LabCorp C r Dr, Research Triangle Park, jen Chenn, M.D., Ph.D. mosome analysis performed by 07 North Gessner Rd., Houston	CLIA NC	
Director Review: 01	Comment: Stephen R. Moore, PhD, FACMG			

#### Disclaimer

PDF

The Previous Result is listed for the most recent test performed by Labcorp in the past 5 years where there is sufficient patient demographic data to match the result to the patient. Results from certain tests are excluded from the Previous Result display.

### **Icon Legend**

#### **Performing Labs**

01: YU - Labcorp RTP, 1904 TW Alexander Drive Ste C, RTP, NC 27709-0153 Dir: Anjen Chenn, MDPhD For Inquiries, the physician may contact Branch: 800-321-3862 Lab: 800-282-7300

# labcorp

Patient ID: Specimen ID: DOB: Age: **29** Sex: **Male**  **Patient Report** 

Account Number: 34334785

Ordering Physician:

labcorp

Patient Details

Date of Birth:

Cb, 587

Phone:

Age: 29

Sex: Male

Patient ID:

Alternate Patient ID:

Physician Details

Cryo Biology

4845 Knightsbridge Blvd., Ste 200,

Columbus, OH, 43214

Phone: **614-451-4375** 

Account Number: 34334785

Physician ID:

NPI:

Specimen Details Specimen ID:

Control ID: **A9234334785**Alternate Control Number:

Date Collected: 03/12/2024 1440 Local
Date Received: 03/13/2024 0000 ET
Date Entered: 03/13/2024 0241 ET
Date Reported: 03/28/2024 1507 ET

labcorp

DOB:

**Patient Report** 

labcorp

Patient ID: Specimen ID Age 29 Sex: Male Account Number: 34334785
Ordering Physician D PRESCOTT

Date Collected: 11/02/2023

/02/2023 Date Re

Date Received: 11/02/2023

Date Reported: 11/04/2023

Fasting: No

Ordered Items: CBC With Differential/Platelet; Hgb Fractionation Cascade

Date Collected: 11/02/2023

# **CBC With Differential/Platelet**

Current Result and Flag	Previous Result and Date	Units	Reference Interval
4.2	-	x10E3/uL	3.4-10.8
5.08		x10E6/uL	4.14-5.80
15.0		g/dL	13.0-17.7
44.3		%	37.5-51.0
87		fL	79-97
29.5		pg	26.6-33.0
33.9		g/dL	31.5-35.7
12.3		%	11.6-15.4
239		x10E3/uL	150-450
50		%	Not Estab.
31		%	Not Estab.
12		%	Not Estab.
6		%	Not Estab.
1		%	Not Estab.
2.1		x10E3/uL	1.4-7.0
1.3		x10E3/uL	0.7-3.1
0.5		x10E3/uL	0.1-0.9
0.3		x10E3/uL	0.0-0.4
0.0		x10E3/uL	0.0-0.2
0		%	Not Estab.
0.0		x10E3/uL	0.0-0.1
	4.2 5.08 15.0 44.3 87 29.5 33.9 12.3 239 50 31 12 6 1 2.1 1.3 0.5 0.3 0.0	4.2 5.08 15.0 44.3 87 29.5 33.9 12.3 239 50 31 12 6 1 2.1 1.3 0.5 0.3 0.0	4.2     x10E3/uL       5.08     x10E6/uL       15.0     g/dL       44.3     %       87     fL       29.5     Pg       33.9     g/dL       12.3     %       239     x10E3/uL       50     %       31     %       12     %       6     %       1     %       2.1     x10E3/uL       1.3     x10E3/uL       0.5     x10E3/uL       0.3     x10E3/uL       0.0     x10E3/uL       0     %

# **Hgb Fractionation Cascade**

Test	<b>Current Result and Flag</b>	Previous Result and Date	Units	Reference Interval
Hgb Fractionation by CE: <sup>91</sup>				
Hgb F <sup>91</sup>	0.0		%	0.0-2.0
Hgb A <sup>e1</sup>	97.1		%	96.4-98.8
Hgb A2 <sup>01</sup>	2.9		%	1.8-3.2
Hgb S <sup>o₁</sup>	0.0		%	0.0

Interpretation: 01

Normal hemoglobin present; no hemoglobin variant or beta thalassemia

identified.

Note: Alpha thalassemia may not be detected by the Hgb Fractionation Cascade panel. If alpha thalassemia is suspected, Labcorp offers

Alpha-Thalassemia DNA Analysis (#511172).

VERIFIED: LS 11-10-23

labcorp

Date Created and Stored 11/04/23 0821 ET Final Report Page 1 of 2

DOB:

**Patient Report** 

labcorp

Patient ID:

Age: 29

Account Number: 34334785

Specimen ID

Sex: Male

Ordering Physician: D PRESCOTT

#### Disclaimer

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#### Icon Legend

#### **Performing Labs**

01: CB - Labcorp Dublin, 6370 Wilcox Road, Dublin, OH 43016-1269 Dir: Vincent Ricchiuti, PhD For Inquiries, the physician may contact Branch: 800-321-3862 Lab: 800-282-7300

**Patient Details** 

Cb, 587

Phone: Date of Birth:

Age: 29
Sex: Male
Patient ID:

Alternate Patient ID:

Physician Details

D PRESCOTT

Cryo Biology 4845 Knightsbridge Blvd., Ste 200,

Columbus, OH, 43214

Phone: 614-451-4375 Account Number: 34334785 Physician ID: PRESCOTT,D

NPI: 1285675868

Specimen Details Specimen ID:

Control ID: **A3N34334785**Alternate Control Number:

Date Collected: 11/02/2023 1420 Local
Date Received: 11/02/2023 0000 ET
Date Entered: 11/02/2023 2240 ET
Date Reported: 11/04/2023 0809 ET