

Newborn Screening Laboratory 465 Henry Mall Madison, WI 53706-1578 Ph: 608-262-6547 Fax: 608-262-5494

# Laboratory Report

James J. Schauer, Ph.D., PE, MBA, Director Errin C. Rider, Ph.D., D(ABMM),M(ASCP)CM, Director of Clinical Laboratory Services

Submitted By:REPORT SUBMITTER NBS [2130]Ordered By:TEST, DOCTOR

Report Date: 6/3/2022

Newborn Screening Report Submitter 123 Street Address City WI 53706

### ATTENTION: Recommendation may be included

### SUBMITTER PROVIDED INFORMATION

Name	Sex	Birth	Ge	est. Age (w)	Birthwt. (g
NBS, TEST BABY 1234567890	Female	5/2/2022 0600	40		3000
Birth Facility		Mother or Guardian Primary Care Provider			
NOT PROVIDED		NBS,TEST MOM		TEST, DOCTOR	
Specimen Details					
	Туре	Collected	Re	ceived	
22NB000212	Dried Blood Spot	5/3/2022 1315	5/3	/2022 1325	
	Repeat Specimen	Age at Collection	NE	S Card No.	
	No	31 hrs	U1	23456	
NEWBORN SCREE	NING SUMMARY (Final result)				
NEWBORN SCREE	NING SUMMARY (Final result)		Result	Reference	Value(s)
NEWBORN SCREE Aminoacidopathie	· · · · · · · · · · · · · · · · · · ·	Screen r		Reference	value(s)
Aminoacidopathie	· · · · · · · · · · · · · · · · · · ·	Screen r Screen r	negative	Reference	Value(s)
Aminoacidopathie	s on (FAO) Disorders		negative	Reference	Value(s)
Aminoacidopathie Fatty Acid Oxidatio	s on (FAO) Disorders s (OA)	Screen r	negative negative negative	Reference	e Value(s)
Aminoacidopathie Fatty Acid Oxidatio Organic Acidemias	s on (FAO) Disorders s (OA) ency	Screen r Screen r	negative negative negative negative	Reference	Value(s)
Aminoacidopathie Fatty Acid Oxidatio Organic Acidemias Biotinidase Deficie	s on (FAO) Disorders s (OA) ency nyroidism	Screen r Screen r Screen r	negative negative negative negative negative	Reference	Value(s)
Aminoacidopathie Fatty Acid Oxidatio Organic Acidemias Biotinidase Deficie Congenital Hypoth	s on (FAO) Disorders s (OA) ency nyroidism	Screen r Screen r Screen r Screen r	negative negative negative negative <b>ARRIER</b>	Reference	Value(s)
Aminoacidopathie Fatty Acid Oxidatio Organic Acidemias Biotinidase Deficie Congenital Hypoth Hemoglobinopathi Galactosemia	s on (FAO) Disorders s (OA) ency nyroidism	Screen r Screen r Screen r Screen r Screen r	negative negative negative negative <b>ARRIER</b> negative	Reference	value(s)
Aminoacidopathie Fatty Acid Oxidatio Organic Acidemias Biotinidase Deficie Congenital Hypoth Hemoglobinopathi Galactosemia Congenital Adrena Cystic Fibrosis (Cl	s on (FAO) Disorders s (OA) ency hyroidism ies al Hyperplasia (CAH) F)	Screen r Screen r Screen r Screen r Screen r Screen r Screen r Screen r	negative negative negative negative ARRIER negative negative negative negative	Reference	• Value(s)
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Comments:

A screen negative result indicates a low risk for the associated screened condition, but the risk is not zero. A screening test result should not be used for diagnosis. When clinical symptoms are indicated, appropriate diagnostic testing should be arranged regardless of NBS test results.

The screening tests performed on this specimen were intended for newborns. Interpretations are based on birthweight, gestational age, and age at collection. Interferences such as transfusion, parenteral nutrition/supplementation, prenatal steroid exposure, and antibiotic therapies may affect the screening test results.

The screening tests for aminoacidopathies, fatty acid oxidation disorders, organic acidemias, biotinidase deficiency, severe combined immune deficiency, spinal muscular atrophy, and the analysis of some included CFTR gene variants were developed and performance characteristics determined by WSLH. These tests have not been cleared or approved



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#### Result Reference Value(s)

by the FDA. The laboratory is regulated under CLIA as qualified to perform high-complexity testing. These tests are used for clinical purposes and should not be regarded as investigational or for research.

For details on the conditions screened, biomarkers, test methods, and reference values, refer to the WSLH website at www.slh.wisc.edu/newborn.

### Hemoglobinopathies Screen (Final result)

	Result	Reference Value(s)
Hemoglobin Pattern	FAS	FA, AF
Hemoglobinopathies	SCREEN CARRIER	

#### Comments:

INTERPRETATION: The presence of Fetal (F), Adult (A), and Sickle (S) hemoglobin indicates this child is a carrier of the sickle cell disease.

RECOMMENDATION: Family testing and genetic counseling for hemoglobinopathies is recommended for child's parents.

Any questions can be directed to the pediatric hematology specialists listed on the Newborn Screening website (www.slh.wisc.edu/NBSresources).

Condition(s) Screened	Method(s)	Biomarker(s)	Reference Value(s)
Aminoacidopathies	1st Tier: MS/MS 2nd Tier: LC-MS/MS	Amino acids	See: www.slh.wisc.edu/newborn
Fatty Acid Oxidation (FAO) Disorders	1st Tier: MS/MS 2nd Tier: LC-MS/MS	Acylcarnitine profile	See: www.slh.wisc.edu/newborn
Organic Acidemias (OA)	1st Tier: MS/MS 2nd Tier: LC-MS/MS	1st Tier: Acylcarnitine profile 2nd Tier: Organic acids	See: www.slh.wisc.edu/newborn
Galactosemia	1st Tier: Enzyme assay 2nd Tier: Enzyme assay	1st Tier: Galactose-1-phosphate uridyl-1-transferase (GALT) activity 2nd Tier: Total galactose	1st Tier: >3.0 U/g Hb 2nd Tier: <6.0 mg/dL
Biotindase Deficiency	Enzyme assay	Biotinidase activity	Present
Congenital Hypothyroidism (CH)	Immunoassay	Thyroid Stimulating Hormone (TSH)	0-96h: <50 uIU/mL 97-312h: <17 uIU/mL ≥313h: <15 uIU/mL
Congenital Adrenal Hyperplasia (CAH)	1st Tier: Immunoassay 2nd Tier: LC-MS/MS	1st Tier: 17-Hydroxyprogesterone (17-OHP) 2nd Tier: steroid profile	Age- and birthweight-dependent (See: www.slh.wisc.edu/newborn)
Hemoglobinopathies	1st Tier: IEF 2nd Tier: HPLC	Hemoglobin (Hgb) fractions	Presence of fetal and adult Hgb
Cystic Fibrosis (CF)	1st Tier. Immunoassay 2nd Tier. Next Generation Sequencing	1st Tier: Immunoreactive Trypsinogen (IRT) 2nd Tier: <i>CFTR</i> gene variants	1st Tier: <170 ng/mL 2nd Tier: None detected
Severe Combined Immune Deficiency (SCID)	Real-Time PCR	T-cell Receptor Excision Circles (TREC)	≤1.079 MoM
Spinal Muscular Atrophy (SMA)	Real-Time PCR	Functional SMN1 exon 7	Present
Pompe Disease	Enzyme assay and MS/MS	Acid alpha glucosidase (GAA) activity	>15% of the daily median

\*\*\*END OF REPORT\*\*\*