

## 1-800-533-1710

Patient Name SAMPLEREPORT,HAEVP	Patient ID SA00055548	<b>Age</b> 46	Gender F	<b>Order #</b> SA00055548
Ordering Phys CLIENT,CLIENT				<b>DOB</b> 06/10/1966
Client Order # SA00055548	Account Information			Report Notes
Collected 05/14/2013	C7028846-DLMP ROCHEST 3050 SUPERIOR DRIVE	ER		
Printed 05/16/2013 15:05	ROCHESTER,MN 55901			

Test	Flag	Results	Unit	Reference Value	Perform Site*
Band 3 Fluorescence Staining, RBC REFERENCE VALUE Expected result is normal	AB	Abnormal	REPORTED	05/16/2013 14:37	MCR
Glutathione, B	Н	99.9	REPORTED mg/dL RBC	05/16/2013 14:37 46.9-90.1	MCR
<pre>Hemolytic Anemia Evaluation Hemolytic Anemia Interpretation HB ELECTROPHORESIS INTERPRETAT Specimen was sent for molecula hemoglobin variant present. MOLECULAR RESULTS: DNA sequence analysis of the E a substitution at codon 97 of MOLECULAR INTERPRETATION: These results confirm Hemoglob affinity variant which causes heterozygote. MOLECULAR METHODS: Alpha Gene Sequencing Method: Genomic DNA was extracted and performed using primers which non-coding portions of the alp (HBA2) genes. This method allc hemoglobinopathies and thalass mutations and small insertions Beta Gene Sequencing Method: Genomic DNA was extracted and performed using primers which non-coding portions of the bet allows for detection of hemogl caused by point mutations and deletions. Beta Gene MLPA Method: Polymerase Chain Reaction (PCR Ligation-dependent Probe Ampli</pre>	TION: r testing CAC to CA oin Malmo, erythrocy Sanger se flank the ha-1 (HBA ws for de emias cau for delet Sanger se flank the a (HBB) co obinopath small ins	g to confirm the identifies Hb Malmo, AG, or to His to Gln. AG, or to His to Gln. , a high oxygen ytosis in the equencing reactions a coding and Al) and alpha-2 etection of used by point tions. equencing reactions a coding and genes. This method hies and thalassemias sertions or Itiplex (MLPA) were used to	REPORTED	05/16/2013 14:59	MCR

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cluster. This method uses mult throughout the beta-globin locu	iple p s on cl	robes that hybridize nromosome 11.			
RBC ENZYME INTERPRETATION: All Red Blood Cell enzyme value Elevated enzyme concentrations a younger erythrocyte populatic reticulocytosis from any cause	es are p can be on. This or in p	normal or elevated. seen in patients with s may be seen with normal neonates.			
OSMOTIC FRAGILITY INTERPRETATIC Osmotic fragility testing: Incr EMA binding test (band 3 assay)	N: eased : : Decre	red blood cell lysis eased fluorescence			
Interpretation: The Osmotic Fra are supportive of a diagnosis of Decreased fluorescence has also blood cell disorders such as he southeast asian ovalocytosis, of anemia type II and cryohydrocyt with the patient's clinical his the peripheral blood smear find	gility of here been : redita: congeni cosis. ' story, : lings i	and Band 3 results ditary spherocytosis. reported in other rare ry pyropoikilocytosis, tal dyserythropoietic Therefore, correlation family history, and s necessary.			
Hemoglobin A2 and F	11195 1	s necessary.			
Hemoglobin A2		2.7	00	2.0-3.3	MCR
Hemoglobin F		0.3	00	0.0-0.9	MCR
Hemoglobin Electrophoresis, B	т.	55 0	٩	95 8-98 0	MCP
Nariant	Ц	42.0 = Hb Malma	- 9-	No observal variants	MCR
Hemoglobin, Unstable, B REFERENCE VALUE Expected result is normal		Normal	•	NO abiornar variants	MCR
Osmotic Fragility, 0.50 g/dL NaCl	н	85.0	%hemol	0.0-31.1	MCR
Osmotic Fragility, 0.60 g/dL NaCl	н	89.0	%hemol	10.9-65.5	MCR
Osmotic Fragility, 0.65 g/dL NaCl	н	98.0	%hemol	0.2-39.3	MCR
Osmotic Fragility 0 75 g/dL NaCl	н	75 0	%hemol	0 0-10 9	MCR
Sex of Control Vial		Female	UIICIIIOI	0.0 10.9	MCR
G-6-PD, ON, RBC	н	18.0	U/a Hb	8.8 - 13.4	MCR
Pyruvate Kinase, RBC	н	22.3	U/q Hb	6.7 - 14.3	MCR
Glucose Phosphate Isomerase, B	н	88.3	U/a Hb	39.3 - 57.7	MCR
Hexokinase, B	н	2.0	U/a Hb	0.8 - 1.9	MCR
Morphology Review Review of blood smear reveals a	u subse	t of spherocytes.			MCR

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HGB Electrophoresis, Molecular			REPORTED 0	5/16/2013 14:36	
Alpha Globin Gene Sequencing		Performed			MCR
Beta Globin Gene Sequencing Laboratory developed test		Performed			MCR
Alpha Globin Gene Sequence		Performed			MCR
Beta Globin Gene Sequence		Performed			MCR
Beta Globin Gene Del/Dup Laboratory developed test.		Performed			MCR
Manual DNA Extraction		Performed			MCR
Alpha Globin Gene Sequencing (AGGS) 1	Beta Globi	in Gene			
Sequencing (BGGS) and Beta Globin Ger laboratory developed tests.	ne Del/Dur	p (BGDD) are			
			REPORTED 0	5/16/2013 14:37	
Hemoglobin F, Red Cell Distrib, B REFERENCE VALUE		Heterocellular			MCR
Reported as: Heterocellular Interpretation Heterocellular distribution of cytometry.	or Homoce	ellular Performed by flow			MCR
				5/16/2013 14.37	
IEF Confirms		Performed	REPORTED 0	5/10/2015 14.57	MCR
			REPORTED 0	5/16/2013 14:38	
Hb Variant by Mass Spec, B Laboratory developed test.		Performed			MCR
Reflexed RBC Enzymes			REPORTED 0	5/16/2013 14:58	
Adenosine Deaminase, B	Н	1.8	U/g Hb	0.5 - 1.7	MCR
Adenylate Kinase, B	Н	325	U/g Hb	190 - 321	MCR
Phosphofructokinase, RBC	Н	9.5	U/g Hb	6.1 - 9.4	MCR
Phosphoglycerate Kinase, B	Н	250	U/q Hb	165 - 239	MCR
Triosephosphate Isomerase, B	Н	1510	U/q Hb	930 - 1406	MCR
Pyrimidine 5' Nucleotidase, B REFERENCE VALUE Expected result is normal		Normal			MCR
			REPORTED 0	5/16/2013 14:38	
Hemoglobin S, Scrn, B REFERENCE VALUE		Negative			MCR

Expected result is negative

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			Reference	Perform
Test	Flag Results	Unit	Value	Site*

\* Performing Site:

MCR Mayo Clinic Laboratories - Rochester Main Campus 200 First St SW Rochester, MN 55905 Lab Director: Franklin R. Cockerill, III, M.I
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