

Client: Example Client ABC123 123 Test Drive

Salt Lake City, UT 84108 UNITED STATES

Physician: Doctor, Example

**Patient: Patient, Example** 

**DOB** 3/3/2004 **Sex:** Male

Patient Identifiers: 01234567890ABCD, 012345

**Visit Number (FIN):** 01234567890ABCD **Collection Date:** 01/01/2017 12:34

## **RBC Band 3 Protein Reduction in Hereditary Spherocytosis**

ARUP test code 2008460

RBC Band 3 Protein Reduction in HS

## Abnormal



A reduction in RBC cell surface band 3 fluorescence was detected. This finding is highly suggestive of hereditary spherocytosis. However, correlation with clinical and other laboratory findings is strongly recommended.

INTERPRETIVE INFORMATION: RBC Band 3 Protein Reduction in HS

This test can be used to confirm a suspected diagnosis of Hereditary Spherocytosis (HS). HS is a common inherited hemolytic anemia characterized by the presence of spherical erythrocytes (spherocytes). HS is diagnosed based on family history and clinical features, along with clinical laboratory tests, including peripheral smear examination, osmotic fragility (OF), flow cytometry, or by genetic testing (Hereditary Hemolytic Anemia Panel Sequencing. ARUP test code 2012052).

Band 3 (or solute carrier family 4 member 1, SLC4A1) is the most abundant transmembrane protein found in human red blood cells (RBC). Eosin-5-maleimide (EMA) dye binds to band 3 on intact RBC's. A reduction of fluorescence intensity will be seen in hereditary spherocytosis. This test by flow cytometry has been reported to have a sensitivity of 93 percent for a diagnosis of HS. Congenital Dyserythropoietic Anemia Type II, Southeast Asian Ovalocytosis and Hereditary Pyropoikilocytosis are rare disorders that may also show a positive result.

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS

VERIFIED/REPORTED DATES				
Procedure	Accession	Collected	Received	Verified/Reported
RBC Band 3 Protein Reduction in HS	20-141-108946	5/20/2020 11:09:00 AM	5/21/2020 1:44:02 PM	5/23/2020 10:24:00 AM

## END OF CHART

H=High, L=Low, \*=Abnormal, C=Critical