10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-HbF (MOUSE) Monoclonal Antibody
Hemoglobin beta F Antibody
Catalog # ASR4242

Specification

Anti-HbF (MOUSE) Monoclonal Antibody - Product Information

Host	**Mouse**
Target Species	**Human**
Reactivity	**Human**
Clonality	**Monoclonal**
Application	**WB, E, I, LCI**
Application Note	**Anti-Hemoglobin beta F (MOUSE) antibody has been tested ELISA and Western Blotting. This antibody is designed for use in lateral flow. Specific conditions of reactivity should be optimized by the end user. Expect a band of approximately 16 kDa.**
Physical State	**Liquid (sterile filtered)**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**Anti-Hemoglobin beta F Monoclonal Antibody was produced in mice by repeated immunizations with synthetic peptide corresponding to amino acid residues near the N-terminus of Hb β-subunit conjugated to KLH.**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-HbF (MOUSE) Monoclonal Antibody - Additional Information

Gene ID 3047

Other Names
3047

Purity
This protein A purified mouse monoclonal antibody reacts specifically with human HbF gamma isoform. Anti-HbF is purified from tissue culture supernatant by protein A purification. Blast analysis shows 100% homology to Human, Pan troglodytes, Pan paniscus, Gorilla gorilla gorilla, Hylobates lar, Macaca nemestrina, Macaca mulatta, Pongo pygmaeus, Pongo pygmaeus, Macaca fuscata fuscata, and Papio cynocephalus. This antibody does not react with the HbA, HbS, HbC, or HbA-2 isoforms.

Storage Condition
Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-HbF (MOUSE) Monoclonal Antibody - Protein Information

Name HBG1

Function
Gamma chains make up the fetal hemoglobin F, in combination with alpha chains.

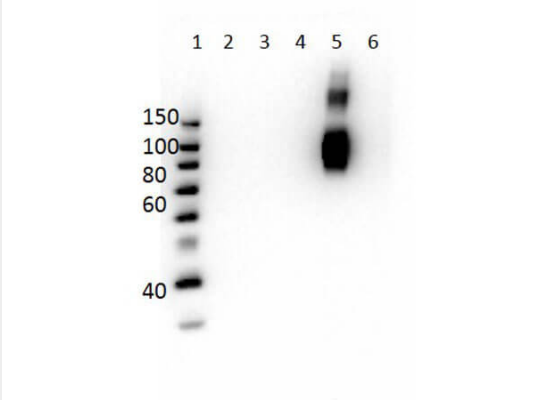
Tissue Location
Red blood cells.

Anti-HbF (MOUSE) Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-HbF (MOUSE) Monoclonal Antibody - Images



Western Blot of Mouse Anti-Hemoglobin beta F Antibody. Lane 1: Molecular Weight Ladder. Lane 2: HbA peptide conjugated to BSA. Lane 3: HbA-2 peptide conjugated to BSA. Lane 4: HbC peptide conjugated to BSA. Lane 5: HbF peptide conjugated to BSA. Lane 6: HbS peptide conjugated to BSA. Load: 50ng per lane. Primary antibody: Anti-HbF antibody at 1 µg/mL overnight at 4°C. Secondary antibody: Rabbit Anti-Mouse secondary antibody at 1:40,000 for 30 min at RT. Block: MB-073 for 30 min RT. Predicted/Observed: Reactivity seen in Lane 5 specific to HbF only.

Anti-HbF (MOUSE) Monoclonal Antibody - Background

HbF antibodies detect the hemoglobin gamma isoform subunit. Functional alternate hemoglobin (Hb) is a hetero tetramer composed of 2 alpha and 2 gamma subunits (alpha-2 gamma-2). Hemoglobin F is elevated in newborns, reaching adult levels by 12 months. HbF levels are increased

to as much as 5% to 10% in normal pregnancy. Sickle cell disease (SCD), thalassemias and hemoglobinopathies occur when aberrant forms of hemoglobin are expressed in children and adults. Hemoglobin variants arise from mutations in the globin genes and sickle cell disease and the more benign sickle cell trait are observed in more than 100 million people globally. HbF antibody does not react other forms of Hb. This antibody is ideal for investigators involved in Cardiovascular and developmental biology research.