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

Anti-HbA (MOUSE) Monoclonal Antibody
Hemoglobin A (beta chain) Antibody
Catalog # ASR4238

Specification

Anti-HbA (MOUSE) Monoclonal Antibody - Product Information

Host	**Mouse**
Target Species	**Human**
Reactivity	**Human**
Clonality	**Monoclonal**
Application	**WB, E, I, LCI**
Application Note	**Anti-Hemoglobin A (beta chain) (MOUSE) antibody has been tested by ELISA and western blot. 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 A (beta chain) 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-HbA (MOUSE) Monoclonal Antibody - Additional Information

Gene ID 3043

Other Names
3043

Purity
This protein A purified mouse monoclonal antibody reacts specifically with human HbA beta chain isoform. Anti-Hemoglobin beta β is purified from tissue culture supernatant by protein A purification. Blast analysis shows 100% homology to Human, Pan troglodytes, Pan paniscus, Gorilla gorilla gorilla, and Hylobates lar. This antibody does not react with the HbS, HbF (gamma), or HbC forms. HbA antibody cross reacts with HbA-2.

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.

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

Anti-HbA (MOUSE) Monoclonal Antibody - Protein Information

Name HBB

Function
Involved in oxygen transport from the lung to the various peripheral tissues. [Spinorphin]: Functions as an endogenous inhibitor of enkephalin-degrading enzymes such as DPP3, and as a selective antagonist of the P2RX3 receptor which is involved in pain signaling, these properties implicate it as a regulator of pain and inflammation.

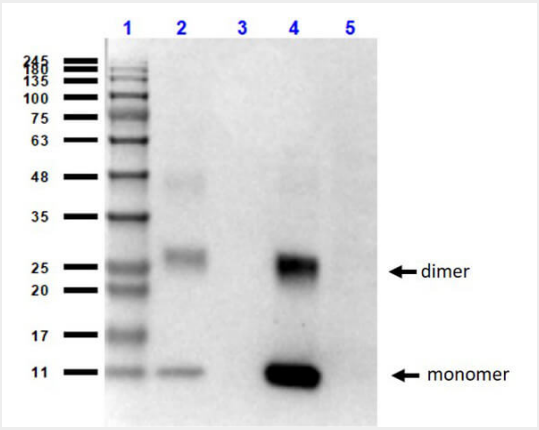
Tissue Location
Red blood cells..

Anti-HbA (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-HbA (MOUSE) Monoclonal Antibody - Images



Western Blot of Mouse Anti-human hemoglobin (HbA) Antibody. Lane 1: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Lane 2: Human HbA (0.1 µg) [+]. Lane 3: Human HbS (0.1 µg) [-]. Lane 4: Human Heart Whole Cell Lysate (2.0 µg) [+]. Lane 5: Human HeLa Whole Cell Lysate (10.0 µg) [-]. Primary Antibody: Anti-HbA at 1.0 µg/mL overnight at 2-8°C. Secondary Antibody: Rabbit Anti-Mouse IgG (gamma 1, 2a, 2b and 3 chain) Antibody Peroxidase Conjugated (p/n 610-403-C46) at 1:40,000 at RT for 30 mins. Block: BlockOut Buffer (p/n MB-073). Predicted MW: ~16kDa. Observed MW: ~11kDa monomer, ~25kDa dimer. Exposure: 30 sec.

Anti-HbA (MOUSE) Monoclonal Antibody - Background

HbA antibodies detect the hemoglobin beta subunit wild type variant A isoform. Functional adult

hemoglobin (Hb) is a hetero tetramer composed of 2 alpha and 2 beta subunits (α2β2). Common isoform variants of hemoglobin include HbA, HbS, HbC, HbF, and HbA-2. Sickle cell disease (SCD), thalassemias and hemoglobinopathies occur when aberrant forms of hemoglobin are expressed in children and adults. Globin gene mutations affect the structure and expression levels of Hb. Sickle cell disease and the more benign sickle cell trait are observed in more than 100 million people globally. Perhaps the most significant mutation is the E6V in the beta subunit and the cause of SCD, but other relevant isoforms of Hb are observed. HbA antibody cross reacts with HbA-2 but does not react other forms Hb. This antibody is ideal for investigators involved in Cardiovascular and developmental biology research.