

**Anti-HbC (MOUSE) Monoclonal Antibody**  
**Hemoglobin beta C Antibody**  
**Catalog # ASR4244**

**Specification**

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**Anti-HbC (MOUSE) Monoclonal Antibody - Product Information**

Host	<b>Mouse</b>
Target Species	<b>Human</b>
Reactivity	<b>Human</b>
Clonality	<b>Monoclonal</b>
Application	<b>WB, E, I, LCI</b>
Application Note	<b>Anti-Hemoglobin beta C (MOUSE) antibody has been tested by 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.</b>
Physical State	<b>Liquid (sterile filtered)</b>
Buffer	<b>0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2</b>
Immunogen	<b>Anti-Hemoglobin beta C Monoclonal Antibody was produced in mice by repeated immunizations with synthetic peptide corresponding to amino acid residues near the N-terminus of Hb <math>\beta</math>-subunit conjugated to KLH.</b>
Preservative	<b>0.01% (w/v) Sodium Azide</b>

**Anti-HbC (MOUSE) Monoclonal Antibody - Additional Information**

**Gene ID** 3043

**Purity**

This protein A purified mouse monoclonal antibody reacts specifically with human HbC beta c-variant isoform. Anti-HbC 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 HbA, HbS, HbF, 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-HbC (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**

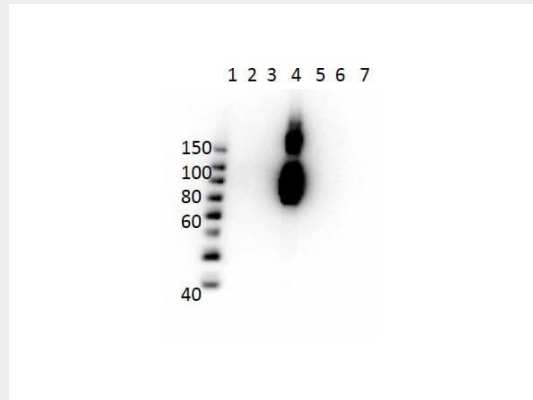
Red blood cells..

**Anti-HbC (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 Cytometry](#)
- [Cell Culture](#)

**Anti-HbC (MOUSE) Monoclonal Antibody - Images**



Western Blot of Mouse Anti-Hemoglobin beta C 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. Lane 7: BSA alone. Load: 50ng per lane. Primary antibody: Anti-HbC 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 4 specific to HbC only.

**Anti-HbC (MOUSE) Monoclonal Antibody - Background**

HbC antibodies detect the E6K mutant in the hemoglobin beta subunit. Functional hemoglobin (Hb) is a hetero tetramer composed of 2 alpha and 2 beta subunits ( $\alpha_2\beta_2$ ). Common isoform variants of hemoglobin include HbA, HbS, HbC, HbF, and HbA2. 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. Less significant than the SCD-E6V, HbC E6K mutation causes a mild hemolytic anemia. HbC antibody does not react to other forms of Hb. This antibody is ideal for investigators involved in Cardiovascular and developmental biology research.