

## Product datasheet for **TA396791S**

### **HBA-T2 (HBB) Mouse Monoclonal Antibody [Clone ID: 14G2.G11.F11]**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	14G2.G11.F11
<b>Applications:</b>	ELISA, WB
<b>Recommended Dilution:</b>	<b>WB:</b> 1ug/mL <b>ELISA:</b> 1:20,000
<b>Reactivity:</b>	Human
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG2a, lambda
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	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 $\beta$ -subunit conjugated to KLH.
<b>Specificity:</b>	This protein A purified mouse monoclonal antibody reacts specifically with human HbA beta chain isoform. Anti-Hemoglobin beta $\beta$ 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.
<b>Formulation:</b>	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
<b>Concentration:</b>	1.00 mg/ml - lot specific
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 $\mu$ L). To minimize loss of volume dilute 1:10 by adding 225 $\mu$ L of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
<b>Stability:</b>	Expiration date is one (1) year from date of receipt.
<b>Gene Name:</b>	hemoglobin subunit beta



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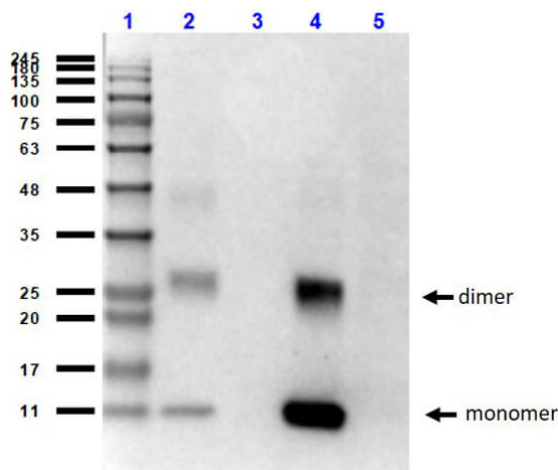
**Database Link:** [Entrez Gene 3043 Human P68871](#)

**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 ( $\alpha_2\beta_2$ ). 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.

**Synonyms:** mouse anti-HbA antibody, mouse anti-hemoglobin antibody, Hemoglobin beta subunit, Hemoglobin subunit beta, Hemoglobin beta chain, HBB, HBA, Hb $\beta$  Antibody, LVV-hemorphin-7, Spinorphin, Sickle Cell Disease (SCD)

**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.

**Product 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  $\mu$ g) [+]. Lane 3: Human HbS (0.1  $\mu$ g) [-]. Lane 4: Human Heart Whole Cell Lysate (2.0  $\mu$ g) [+]. Lane 5: Human HeLa Whole Cell Lysate (10.0  $\mu$ g) [-]. Primary Antibody: Anti-HbA at 1.0  $\mu$ g/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.