

Product datasheet for TP727329

HBA1 Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant Human Hemoglobin Subunit $\hat{1}\pm$ /HBA1 (N-6His)
Species:	Human
Expression cDNA Clone or AA Sequence:	Met1-Arg142
Tag:	N-His
Buffer:	Lyophilized from a 0.2 um filtered solution of 20mM Tris-HCl, 150mM NaCl, 1mM EDTA, pH 8.0 .
Note:	Recombinant Human Hemoglobin subunit alpha is produced by our E.coli expression system and the target gene encoding Met1-Arg142 is expressed with a 6His tag at the N-terminus.
Stability:	12 months from date of despatch
Locus ID:	3039
UniProt ID:	P69905
Summary:	Hemoglobin subunit alpha 1 (HBA1), also known as $\hat{1}\pm$, is a hetero-tetramer consisting of two $\hat{1}\pm$ and two $\hat{1}^2$ subunits held together by non-covalent interactions. Each subunit contains a heme group with an iron atom in the Fe ²⁺ state. Cooperativity of Hemoglobin (Hb) in binding with O ₂ and allosteric regulatory binding properties with CO ₂ , H ⁺ , Cl ⁻ , and 2,3-DPG (2,3-bisphosphoglycerate) are based on subunit interactions. HBA1 is the most common type of Hb in adult humans, which mediates the transport of oxygen and carbon dioxide in the blood. In recent years, Hb $\hat{1}\pm$ and $\hat{1}^2$ chains have been found co-expressed in alveolar cells, mesangial cells of the kidney, retinal ganglion cells, hepatocytes and neurons. Endothelial and peripheral catecholaminergic cells express exclusively the $\hat{1}\pm$ chain, while macrophages present the $\hat{1}^2$ chain only.



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