Recombinant Human HBQ1 Protein (His Tag)

Catalog Number: PKSH032532

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description			
Species	Human		
Source	E.coli-derived Human HBQ1 protein Met 1-Arg142, with an N-terminal His		
Calculated MW	17.7 kDa		
Observed MW	15&30 kDa		
Accession	P09105		
Bio-activity	Not validated for activity		
Properties			
Purity	> 95 % as determined by reducing SDS-PAGE.		
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.		
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80		
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of		
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.		
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.		
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.0.		
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants		
	before lyophilization.		
	Please refer to the specific buffer information in the printed manual.		
Reconstitution	Please refer to the printed manual for detailed information.		

Data

kDa 120 90 60	MK	R
40 30]]	
20	1	
14	1.000 C	-

> 95 % as determined by reducing SDS-PAGE.

Background

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Hemoglobin subunit theta-1 is a protein that in humans is encoded by the HBQ1 gene. Theta-globin mRNA is originally found in human fetal erythroid tissue but not in adult erythroid or other nonerythroid tissue. Theta-1 is a member of the human alpha-globin gene cluster that includes five functional genes and two pseudogenes. Research supports a transcriptionally active role for the gene and a functional role for the peptide in specific cells, possibly those of early erythroid tissue. Hemoglobin has a quaternary structure characteristically composed of many multi-subunit globular proteins. Most of the amino acids in hemoglobin form alpha helices, connected by short non-helical segments. Hydrogen bonds stabilize the helical sections inside this protein, causing attractions within the molecule, folding each polypeptide chain into a specific shape. Hemoglobin's quaternary structure comes from its four subunits in roughly a tetrahedral arrangement.