# Recombinant Human HBQ1 Protein (His Tag)

**Catalog Number:PKSH032532**

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

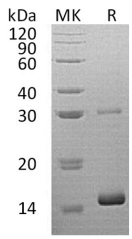
## Description

| | |
|---|---|
| **Synonyms** | Hemoglobin subunit theta-1;Hemoglobin theta-1 chain;Theta-1-globin;HBQ1 |
| **Species** | Human |
| **Expression Host** | E.coli |
| **Sequence** | Met 1-Arg142 |
| **Accession** | P09105 |
| **Calculated Molecular Weight** | 17.7 kDa |
| **Observed molecular weight** | 15&30 kDa |
| **Tag** | N-His |

## 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℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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% Tween80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed man |
| **Reconstitution** | Please refer to the printed manual for detailed information. |

## Data




> 95 % as determined by reducing SDS-PAGE.

## Background

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

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