

# Recombinant human Hemoglobin subunit alpha protein

Catalog Number: ATGP1677

## PRODUCT INFORMATION

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**Expression system**

E.coli

**Domain**

1-142aa

**UniProt No.**

P69905

**NCBI Accession No.**

NP\_000508.1

**Alternative Names**

Hemoglobin subunit alpha, nucleophosmin/nucleoplasmin 2

## PRODUCT SPECIFICATION

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**Molecular Weight**

19.5 kDa (179aa)

**Concentration**

0.5mg/ml (determined by Bradford assay)

**Formulation**

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 20% glycerol, 2M urea, 2mM DTT

**Purity**

&gt; 85% by SDS-PAGE

**Tag**

His-Tag

**Application**

SDS-PAGE, Denatured

**Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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**Description**

Hemoglobin subunit alpha, also known as HBA2, belongs to the globin family. HBA2 is involved in oxygen transport from the lung to the various peripheral tissues. The alpha-2 (HBA2) and alpha-1 (HBA1) coding sequences are identical. These genes differ slightly over the 5' untranslated regions and the introns, but they differ significantly over the 3' untranslated regions. Two alpha chains plus two beta chains constitute HbA, which in normal adult life comprises about 97% of the total hemoglobin; alpha chains combine with delta chains to constitute HbA-2, which with HbF (fetal hemoglobin) makes up the remaining 3% of adult hemoglobin. Alpha

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thalassemias result from deletions of each of the alpha genes as well as deletions of both HBA2 and HBA1; some nondeletion alpha thalassemias have also been reported. Recombinant human HBA2 protein, fused to His-tag at N-terminus, was expressed in *E. coli*.

## Amino acid Sequence

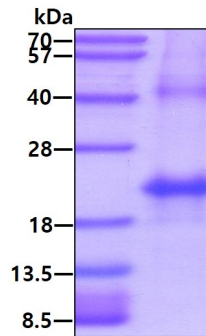
<MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSH>MVL SPADKTNVKA AWGKVGAGAHAG EYGAEALERM  
FLSFPTTKTY FPHFDLSHGS AQVKGHGKVK ADALTNAVAH VDDMPNALSALSDLHAHKLR VDPVNFKLLS HCLLVTLAAH  
LPAEFTPAVH ASLDKFLASV STVLTSKYR

## General References

Jorge S.B., et al. (2003) Braz. J. Med. Biol. Res. 36:1471-1474  
Abdulmalik O., et al. (2004) Am. J. Hematol. 77:268-276

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.