Recombinant human Hemoglobin subunit alpha protein

Catalog Number: ATGP1677

PRODUCT INFORMATION

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

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
> 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

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

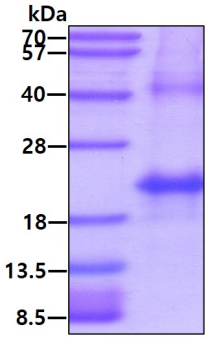
<MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSH>MVL SPADKTNVKA AWGKVGAHAG EYGAEALERM FLSFPTTKTY FPHFDLSHGS AQVKGHGKKV ADALTNAVAH VDDMPNALSA LSDLHAHKLR VDPVNFKLLS HCLLVTLAAH LPAEFTPAVH ASLDKFLASV STVLTSKYR

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.