Recombinant human Hexosaminidase A/HEXA protein

Catalog Number: ATGP1941

PRODUCT INFORMATION

Expression system
E.coli

Domain
89-529aa

UniProt No.
P06865

NCBI Accession No.
NP_000511.1

Alternative Names
beta-hexosaminidase subunit alpha, TSD, hexosaminidase A

PRODUCT SPECIFICATION

Molecular Weight
52.9 kDa (464aa)

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.4M uREA, 10% glycerol

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
HEXA is the alpha subunit of the lysosomal enzyme beta-hexosaminidase that, together with the cofactor GM2 activator protein, catalyzes the degradation of the ganglioside GM2, and other molecules containing terminal N-acetyl hexosamines. Beta-hexosaminidase is composed of two subunits, alpha and beta, which are encoded by separate genes. Both beta-hexosaminidase alpha and beta subunits are members of family 20 of glycosyl hydrolases. Alpha subunit gene mutations lead to Tay-Sachs disease (GM2-gangliosidosis type I). Recombinant human HEXA protein, fused to His-tag at N-terminus, was expressed in E. coli.

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Amino acid Sequence

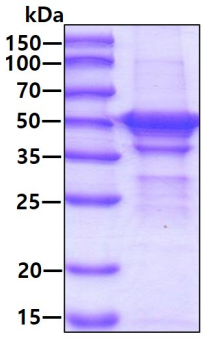
<MGSSHHHHHH SSGLVPRGSH MGS>TLEKNVL VVSVVTPGCN QLPTLESVEN YTLTINDDQC LLLSETVWGA LRGLETFSQL VWKSAEGTFF INKTEIEDFP RFPHRGLLLD TSRHYLPLSS ILDTLDVMAY NKLNVFHWHL VDDPSFPYES FTFPELMRKG SYNPVTHIYT AQDVKEVIEY ARLRGIRVLA EFDTPGHTLS WGPGIPGLLT PCYSGSEPSG TFGPVNPSLN NTYEFMSTFF LEVSSVFPDF YLHLGGDEVD FTCWKSNPEI QDFMRKKGFG EDFKQLESFY IQTLLDIVSS YGKGYVVWQE VFDNKVKIQP DTIIQVWRED IPVNYMKELE LVTKAGFRAL LSAPWYLNRI SYGPDWKDFY VVEPLAFEGT PEQKALVIGG EACMWGEYVD NTNLVPRLWP RAGAVAERLW SNKLTSDLTF AYERLSHFRC ELLRRGVQAQ PLNVGFCEQE FEQT

General References

Nakano T., et al. (1988) J. Neurochem. 51:984-987

DATA

SDS-PAGE



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