

Technical Data Sheet

Human HexA Protein (C-His, 293 Expressed)

Catalog Number: 600501, 600502

Size: 25 ug, 100 ug

Target Name: Hexosaminidase A

Regulatory Status: RUO

Product Details

Application: ELISA

Format: Liquid, Purified

Expression Host: HEK293

Species: Human

Accession Number: P06865

Sources: Human HexA (Leu23-Thr529) protein with C-terminus His tag is expressed in HEK293 cells.

Molecular Weight: This protein has a predicted molecular weight of 60.2 kDa. Under DTT-reducing conditions, the protein migrates at approximately 65 kDa on SDS-PAGE.

Affinity Tag: C-His

Purity: >95% based on SDS-PAGE under reducing condition

Formulation: 1xPBS buffer, pH7.4, 0.22 µm filtered

Endotoxin level: Not tested

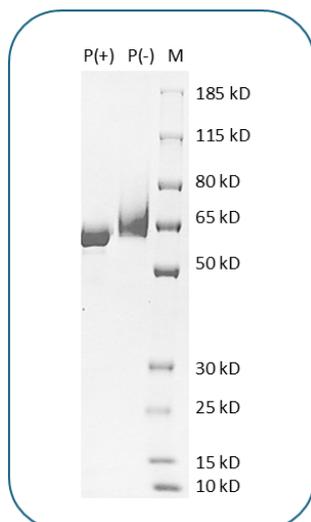
Protein Concentration: 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.

Storage and Handling: Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS, pH 7.4. For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ -70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

Background Information

Beta-hexosaminidases are lysosomal enzymes that hydrolyze terminal N-acetyl-D-hexosamine residues from GM2 gangliosides and globo-sphingolipids. They exist in three isoforms: Hex A (αβ), Hex B (ββ), and Hex S (αα), formed by different combinations of α and β subunits encoded by the HEXA and HEXB genes. Recombinant HEXA corresponds to Hex S and cleaves non-reducing end N-acetylgalactosamine residues from dermatan sulfate, chondroitin sulfate, and sulfated glycolipids, and is also active against 4-methylumbelliferyl-N-acetyl-β-D-glucosaminide. Mutations in HEXA cause Tay-Sachs disease, a fatal lysosomal storage disorder marked by GM2 ganglioside accumulation in neurons, typically leading to death by age 4.

Product Data



Purified HexA (C-His tag, 293 expressed) final product on SDS-PAGE under non-reducing (P-) and reducing (P+) conditions. The purity of HexA appears to be greater than 95%.