

Technical Data Sheet

Human HexA Protein (C-FLAG)

Catalog Number: 600701, 600702

Size: 25 ug, 100 ug

Target Name: Hexosaminidase A

Regulatory Status: RUO

Product Details

Application: ELISA

Format: Liquid, Purified

Expression Host: CHO

Species: Human

Accession Number: P06865

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

Molecular Weight: This protein has a predicted molecular weight of 59.9 kDa. Under DTT-reducing conditions, the protein migrates at approximately 65 kDa on SDS-PAGE.

Affinity Tag: C-DYKDDDDK

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

Formulation: 1xPBS buffer, pH7.4, 0.22 μ m filtered

Endotoxin level: Not tested

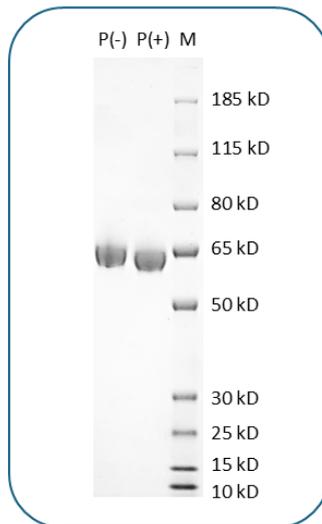
Protein Concentration: 25 μ g size is bottled at 0.2mg/mL concentration. 100 μ g size is supplied at a lot-specific concentration.

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 μ m-filtered 25 mM Tris, 150 mM NaCl, pH 7.5. For long-term storage, the diluted stock solution should be aliquoted and stored at $\leq -70^{\circ}\text{C}$ 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 ($\alpha\beta$), Hex B ($\beta\beta$), and Hex S ($\alpha\alpha$), 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-DYKDDDDK, CHO expressed) final product on SDS-PAGE under non-reducing (P-) and reducing (P+) conditions. The purity of HexA appears to be greater than 95%.