

## Human HexA Protein (C-His, 293 Expressed)

<b>Catalog Number:</b>	600501, 600502
<b>Size:</b>	25 ug, 100 ug
<b>Target Name:</b>	Hexosaminidase A
<b>Regulatory Status:</b>	RUO

### PRODUCT DETAILS

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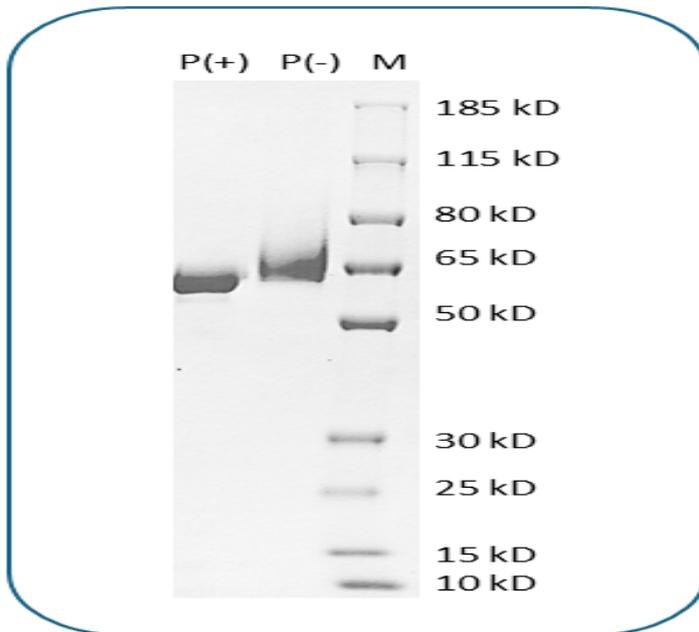
<b>Application:</b>	ELISA
<b>Format:</b>	Liquid, Purified
<b>Expression Host:</b>	HEK293
<b>Species:</b>	Human
<b>Accession Number:</b>	P06865
<b>Sources:</b>	Human HexA (Leu23-Thr529) protein with C-terminus His tag is expressed in HEK293 cells.
<b>Molecular Weight:</b>	This protein has a predicted molecular weight of 60.2 kDa. Under DTT-reducing conditions, the protein migrates at approximately 65 kDa on SDS-PAGE.
<b>Affinity Tag:</b>	C-His
<b>Purity:</b>	>95% based on SDS-PAGE under reducing condition
<b>Formulation:</b>	1xPBS buffer, pH7.4, 0.22 $\mu$ m filtered
<b>Endotoxin level:</b>	Not tested
<b>Protein Concentration:</b>	25 $\mu$ g size is bottled at 0.2mg/mL concentration. 100 $\mu$ g size is supplied at a lot-specific concentration.
<b>Storage and Handling:</b>	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 $\mu$ m-filtered PBS, pH 7.4. For long-term storage, the diluted stock solution should be aliquoted and stored at $\leq$ -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

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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  $\alpha$  and  $\beta$  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- $\beta$ -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%.