

Beta Hexosaminidase Assay Kit | nagZ assay kit

Beta Hexosaminidase Activity Assay Kit

CATALOG #
AAA44668

PRODUCT SYNONYMS

Beta Hexosaminidase; Beta Hexosaminidase Activity Assay Kit; nagZ assay kit

PRODUCT SPECIFICATIONS

Sequence Length	345
Preparation and Storage	Store the Recombinant Beta Hexosaminidase and 10X Substrate at -80 degree C. Store the remaining components at room temperature.

ADDITIONAL INFORMATION

Related Product Information for nagZ assay kit	Background/Introduction: Hexosaminidase is an enzyme that hydrolyzes terminal N-acetyl-D-hexosamine residues from N-acetyl-beta-D-hexosaminides. The enzyme, localized to cellular lysosomes, is a dimer formed from either an alpha or beta subunit which produces three possible dimer combinations. The alphabeta combination (isozyme A) is the only combination with a known function: hydrolyzing GM2 ganglioside in vivo. The other two combinations of alphaalpha (isozyme B) and betabeta (isozyme S) have been observed in cellular tissues but their function is unknown. Isozyme A works in combination with cofactor GM2 activator protein to degrade GM2 gangliosides and other molecules that have terminal N-acetyl hexosamines. Gene mutations that code for the beta subunit can result in Sandhoff disease. Mutations in the locus for the alpha subunit decrease the hydrolysis of GM2 gangliosides, which is the primary cause of Tay-Sachs disease. While both the alpha and beta subunits of lysosomal hexosaminidase can cleave GalNAc residues, only the alpha subunit is able to hydrolyze GM2 gangliosides because of a key residue, Arg-424, and a loop structure that forms from the amino acid sequence in the alpha subunit. The GM2 activator protein acts as a transporter to localize GM2 gangliosides to hexosaminidase, so a functional hexosaminidase enzyme is able to hydrolyze GM2 gangliosides into GM3 gangliosides. Beta Hexosaminidase Activity Assay Kit is a simple fluorometric assay that measures beta hexosaminidase activity in a 96-well microtiter plate format. Each kit provides sufficient reagents to perform up to 100 assays, including blanks, beta hexosaminidase positive control and unknown samples.
Product Categories/Family for nagZ assay kit	Metabolism Research ; Lipoprotein Metabolism

NCBI AND UNIPROT INFORMATION

NCBI GI #	575441606
Molecular Weight	38,897 Da
NCBI Official Full Name	Beta-hexosaminidase
UniProt Protein Name	Beta-hexosaminidase
UniProt Gene Name	nagZ

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.