Human Hexosaminidase A/HEXA antibody

Catalog Number: ATGA0259

PRODUCT INFORMATION

Catalog number
ATGA0259

Clone No.
AT20F1

Product type
Monoclonal Antibody

UnitProt No.
P06865

NCBI Accession No.
NP_000511.1

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

PRODUCT SPECIFICATION

Antibody Host
Mouse

Reacts With
Human

Concentration
1mg/ml (determined by BCA assay)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen
Recombinant human HEXA (89-529aa) purified from E. coli

Isotype
IgG2a Lambda

Purification Note
By protein-A affinity chromatography

Application
ELISA,WB,FACS

Usage
The antibody has been tested by ELISA, Western blot and FACS analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

Storage

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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

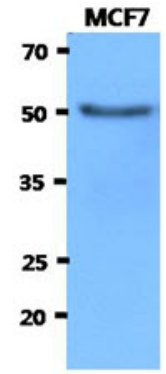
HEXA (Hexosaminidase A), also designated beta-Hexosaminidase A, is responsible for the degradation of GM2 gangliosides, and a variety of other molecules containing terminal N-acetyl hexosamines, in the brain and other tissues. A mutation in the a subunit of hexosaminidase is the cause of Tay-Sachs disease (TSD), also known as GM2-gangliosidosis type I. TSD is a fatal autosomal recessive lysosomal storage disease of the central nervous system (CNS) caused by insufficient activity of the HEXA enzyme that results in a failure to process GM2 gangliosides. The accumulation of GM2 ganglioside in the absence of HEXA activity causes progressive destruction of the CNS.

General References

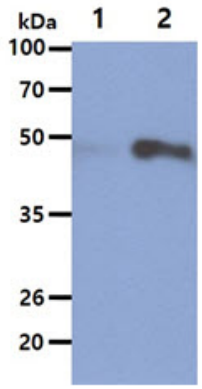
Cabezas. J.A. (1989) Biochem J 261(3): 1059-1060.
Lemieux. M.J., et al. (2006) J Mol Biol 359(4): 913-929.
Boles. D.J. and Proia. R.L. (1995) Am J Hum Genet 56(3): 716-724.

DATA

Western blot analysis (WB)



The cell lysate of MCF7 (40ug) was resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human HEXA antibody (1:3000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.



The cell lysates (10ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human HEXA antibody (1:3000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1.: 293T cell lysate
Lane 2.: HEXA Transfected 293T cell lysate

Flow cytometry (FACS)

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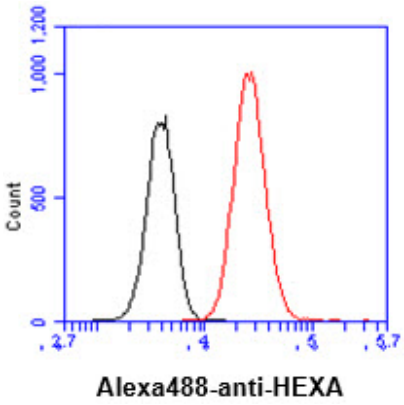

Flow cytometry analysis of HEXA in A549 cell line, staining at 2-5ug for 1x10^6cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).