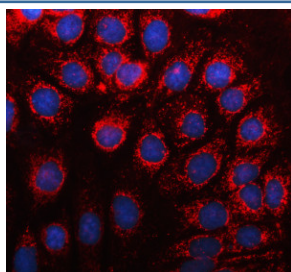


HEXB Antibody / Beta-Hexosaminidase Beta Subunit Antibody (R31624)

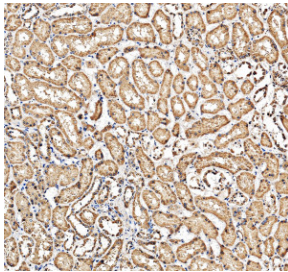
Catalog No.	Formulation	Size
R31624	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

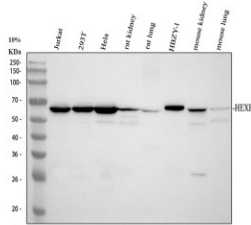
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
Gene ID	3074
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunofluorescence : 5ug/ml
Limitations	This HEXB Antibody / Beta-Hexosaminidase Beta Subunit Antibody is available for research use only.



HEXB Antibody by IF in CACO-2 Cells. Immunofluorescence analysis of human CACO-2 cells using HEXB Antibody. HEXB staining is visualized in red with Cy3, while nuclei are counterstained blue with DAPI. The Beta-Hexosaminidase Beta Subunit Antibody demonstrates predominantly cytoplasmic intracellular labeling, consistent with the lysosomal localization of HEXB. Cells underwent enzyme-mediated antigen retrieval prior to antibody incubation.



HEXB Antibody by IHC in Human Kidney. Immunohistochemistry of paraffin-embedded human kidney sections using HEXB Antibody. Cytoplasmic staining is observed within renal cells, demonstrating the distribution of HEXB protein in kidney tissue. The Beta-Hexosaminidase Beta Subunit Antibody produces distinct cellular labeling with comparatively limited nuclear staining. Heat-mediated antigen retrieval was performed in EDTA buffer at pH 8.0 prior to antibody incubation.



HEXB Antibody by WB in Human Cells and Rodent Tissues. Western blot testing of human Jurkat (lane 1), 293T (lane 2), HeLa (lane 3), rat kidney (lane 4), rat lung (lane 5), human HBZY-1 (lane 6), mouse kidney (lane 7) and mouse lung (lane 8) lysates with HEXB Antibody. A prominent band is detected at approximately 63 kDa across the tested samples, consistent with the expected molecular weight of HEXB. The Beta-Hexosaminidase Beta Subunit Antibody demonstrates target-sized detection across human, mouse and rat samples with limited additional reactivity.

Description

HEXB Antibody / Beta-Hexosaminidase Beta Subunit Antibody recognizes the beta subunit of beta-hexosaminidase, encoded by the HEXB gene. HEXB is synthesized as a precursor that is transported through the secretory pathway and processed within the endosomal-lysosomal system. The mature beta subunit contributes to two lysosomal beta-hexosaminidase enzymes with different subunit compositions and substrate specificities.

HEXB beta subunits associate as homodimers to form beta-hexosaminidase B (Hex B) and combine with alpha subunits encoded by HEXA to form beta-hexosaminidase A (Hex A). These lysosomal glycosidases participate in the degradation of glycosphingolipids, glycoproteins and other glycoconjugates. Hex A additionally works with GM2 activator protein in the degradation of GM2 ganglioside, connecting HEXB directly to lysosomal sphingolipid metabolism.

Loss-of-function variants in HEXB cause Sandhoff disease, a lysosomal storage disorder within the GM2 gangliosidosis group. Because the beta subunit participates in both Hex A and Hex B, HEXB deficiency compromises the activity of both enzymes and leads to accumulation of GM2 ganglioside and other undegraded substrates. Progressive substrate accumulation particularly affects the nervous system, making HEXB relevant to research involving lysosomal dysfunction, lipid metabolism and neurodegeneration.

This rabbit polyclonal antibody was generated against a recombinant fragment of human HEXB and is antigen affinity purified. NSJ Bioreagents provides this HEXB Antibody for research into beta-hexosaminidase expression, lysosomal metabolism and the molecular biology of GM2 gangliosidosis. A Beta-Hexosaminidase Beta Subunit Antibody can support studies of the HEXB protein and its contribution to lysosomal glycoconjugate degradation.

For additional information on HEXB biology and monoclonal antibody-based tissue validation, visit our [Hexosaminidase B Antibody HEXB/7762 / Lysosomal Beta-Hexosaminidase Antibody](#) page.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the HEXB Antibody / Beta-Hexosaminidase Beta Subunit Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Human partial recombinant protein (AA 381-556) was used as the immunogen for this HEXB antibody.

Storage

After reconstitution, the HEXB antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

HEXB antibody, beta-hexosaminidase beta subunit antibody, beta-hexosaminidase subunit beta antibody, Hex B antibody, beta-N-acetylhexosaminidase beta subunit antibody