Human Iduronate 2-Sulfatase/IDS Antibody

Monoclonal Mouse IgG_{2B} Clone # 331320

Catalog Number: MAB2449

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Iduronate 2-Sulfatase/IDS in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody does not cross-react with recombinant mouse Iduronate 2-Sulfatase/IDS.
Source	Monoclonal Mouse IgG_{2B} Clone # 331320
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Iduronate 2-Sulfatase/IDS Ser26-Pro550 Accession # P22304
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human Iduronate 2-Sulfatase/IDS (Catalog # 2449-SU)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

As a member of the sulfatase family, IDS is required for the lysosomal degradation of the glycosaminoglycans (GAG) heparan sulfate and dermatan sulfate (2, 3). It hydrolyzes the 2-sulfate group of the L-iduronate 2-sulfate units of the GAG. The IDS deficiency results in mucopolysaccharidosis II (MPS II or Hunter syndrome), an X-linked inborn error leading to lysosomal accumulation of the GAG and its excretion in urine. MPS II has a wide spectrum of clinical manifestations ranging from mild to severe. The deduced amino acid sequence of human IDS consists of a signal peptide (residues 1 - 25), a pro peptide (residues 26 - 33) and a mature chain (residues 34 - 550) that may be further processed into the 42 kDa chain (residues 34 - 455) and the 14 kDa chain (residues 456 - 550) (1). Recombinant human IDS corresponds to the single chain and has sulfatase activity described above.

References:

1. Wilson, P.J. *et al.* (1990) Proc. Natl. Acad. Sci. USA **87**:8531.
2. Parenti, G. *et al.* (1997) Curr. Opin. Genet. & Dev. **7**:386.
3. Neufeld, E.F. and Muenzer, J. (2001) in *The Metabolic and Molecular Basis of Inherited Disease*, Scriver, C.R. *et al.* (eds.) pp. 3421 - 3452, New York, McGraw-Hill.

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