Human Iduronate 2-Sulfatase/IDS Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2449

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IDS in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant mouse IDS is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human 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.

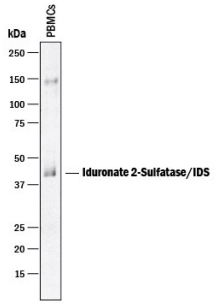
APPLICATIONS

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	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Iduronate 2-Sulfatase/IDS (Catalog # 2449-SU), see our available Western blot detection antibodies

DATA

Western Blot



Detection of Human Iduronate 2-Sulfatase/IDS by Western Blot. Western blot shows lysates of human peripheral blood mononuclear cells (PBMCs). PVDF membrane was probed with 1 µg/mL of Goat Anti-Human Iduronate 2-Sulfatase/IDS Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2449) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Iduronate 2-Sulfatase/IDS at approximately 42 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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 J. Muenzer (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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