

IDS/Iduronate 2-sulfatase Protein, Human (HEK293, His)

Cat. No.:	HY-P76399
Synonyms:	Iduronate 2-sulfatase; Alpha-L-iduronate sulfate sulfatase; IDS; SIDS
Species:	Human
Source:	HEK293
Accession:	P22304-1 (S26-P550)
Gene ID:	3423
Molecular Weight:	Approximately 75-95 kDa due to the glycosylation.

PROPERTIES

AA Sequence	<pre> SETQANSTTD ALNVLLIIVD DLRPSLGCYG DKLVRSPNID QLASHSLLFQ NAFQAQAVCA PSRVSFLTGR RPDTRRLYDF NSYWRVHAGN FSTIPQYFKE NGYVTMSVGK VFHPGISSNH TDDSPYSWSF PPYHPSSEKY ENTKTCRGPD GELHANLLCP VDVLDVPEGT LPDKQSTEQA IQLLEKMKTS ASPFFLAVGY HKPHIPFRYP KEFQKLYPLE NITLAPDPEV PDGLPPVAYN PWMDIRQRED VQALNISVPY GPIPVDFQRK IRQSYFASVS YLDTQVGRLL SALDDLQLAN STIIAFTSDH GWALGEHGEW AKYSNFDVAT HVPLIFYVPG RTASLPEAGE KLFPYLDPFD SASQLMEPGR QSMDLVELVS LFPTLAGLAG LQVPPRCVPV SFHVELCREG KNLLKHFRFR DLEEDPYLPG NPRELIAYSQ YPRPSDIPQW NSDKPSLKDI KIMGYSIRTI DYRYTVWVGF NPDEFLANFS DIHAGELYFV DSDPLQDHNM YNDSQGGDLF QLLMP </pre>
Biological Activity	Measured by its ability to hydrolyze the substrate 4-Nitrocatechol Sulfate (PNCS). The specific activity is 6.123 pmol/min/μg, as measured under the described conditions.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

IDS (Iduronate 2-sulfatase) is a lysosomal enzyme playing a crucial role in the degradation pathway of dermatan sulfate and heparan sulfate. As an essential component of cellular metabolism, IDS facilitates the breakdown of these glycosaminoglycans within lysosomes, contributing to the maintenance of normal cellular function and tissue homeostasis. The enzymatic activity of IDS is vital for the catabolism of dermatan sulfate and heparan sulfate, preventing their accumulation within lysosomal compartments and ensuring proper cellular processes. This underscores the pivotal role of IDS in the intricate network of metabolic pathways involved in the degradation of glycosaminoglycans.

Caution: Product has not been fully validated for medical applications. For research use only.

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