Human IDS Protein, His Tag (active enzyme, MALS verified)

Catalog # IDS-H52H3

Synonyms

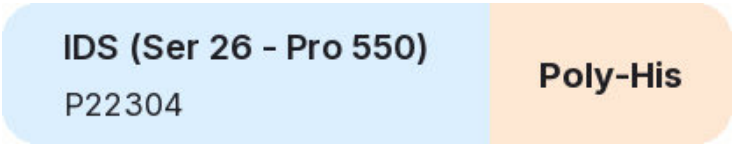
IDS

Source

Human IDS Protein, His Tag (IDS-H52H3) is expressed from human 293 cells (HEK293). It contains AA Ser 26 - Pro 550 (Accession # P22304).

Predicted N-terminus: Ser 26

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 61.2 kDa. The protein migrates as 65-85 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per μg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Supplied as 0.2 μm filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping and Storage

This product is supplied and shipped on dry ice.

Please avoid repeated freeze-thaw cycles.

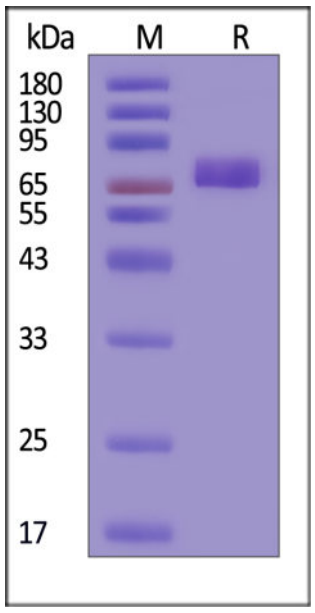
This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

ACRO Quality Management System

- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

SDS-PAGE



Human IDS Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



The purity of Human IDS Protein, His Tag (Cat. No. IDS-H52H3) is more than 95% and the molecular weight of this protein is around 65-90 kDa verified by SEC-MALS.

Activity

Measured by its ability to hydrolyze the substrate 4-Nitrocatechol Sulfate (PNCS). The specific activity is > 7.0 pmol/min/μg (QC tested).

Background

Iduronate 2-sulfatase (IDS) is a lysosomal enzyme essential for the degradation of glycosaminoglycans (GAGs), specifically heparan sulfate and dermatan sulfate.

Mutations or deficiency in the IDS gene cause Hunter syndrome (Mucopolysaccharidosis type II, MPS II), an X-linked lysosomal storage disorder characterized by the toxic accumulation of GAGs in tissues and organs.

In drug development, recombinant IDS proteins are critical reagents. They are mainly used to support Enzyme Replacement Therapy (ERT), gene therapy, and blood-brain barrier (BBB) crossing drug pipelines, specifically for in vitro enzyme activity assays, cellular uptake studies, and immunogenicity (ADA/NAb) screening.

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