

Recombinant Human Iduronate 2-Sulfatase/IDS Protein (His Tag)

Catalog Number: PKSH031672

Note: Centrifuge before opening to ensure complete recovery of vial contents.

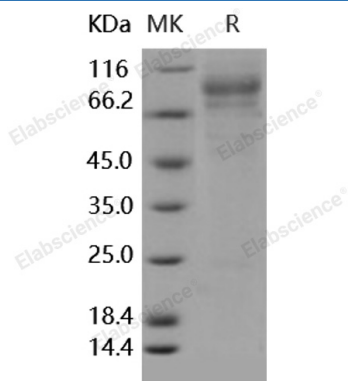
Description

| | |
|----------------------|--|
| Species | Human |
| Source | HEK293 Cells-derived Human Iduronate 2-Sulfatase/IDS protein Met 1-Pro 550, with an C-terminal His |
| Calculated MW | 61.0 kDa |
| Observed MW | 85-95 kDa |
| Accession | NP_000193.1 |
| Bio-activity | Measured by its ability to hydrolyze the substrate 4-Nitrocatechol Sulfate (PNCS). The specific activity is > 1.0 pmoles/min/μg. |

Properties

| | |
|-----------------------|---|
| Purity | > 87 % as determined by reducing SDS-PAGE. |
| Endotoxin | < 1.0 EU per μg of the protein as determined by the LAL method. |
| Storage | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. |
| Shipping | This product is provided as lyophilized powder which is shipped with ice packs. |
| Formulation | Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual. |
| Reconstitution | Please refer to the printed manual for detailed information. |

Data



> 87 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

Toll-free: 1-888-852-8623
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Iduronate 2-Sulfatase, also known as IDS, is a member of the highly conserved sulfatase family of enzymes that catalyze the hydrolysis of O- and N-sulfate esters from a variety of substrates. The human Iduronate 2-Sulfatase/IDS consists of a signal peptide, a pro peptide and a mature chain that may be further processed into two chains. Among the identified 18 human sulfatases, Iduronate 2-Sulfatase/IDS is required for the lysosomal degradation of the glycosaminoglycans (GAG), heparan sulfate and dermatan sulfate. Multiple mutations in this X-chromosome localized gene result in Iduronate 2-Sulfatase/IDS enzymatic deficiency, and lead to the sex-linked Mucopolysaccharidosis Type II (MPS II), also known as Hunter Syndrome characterized by the lysosomal accumulation of the GAG and their excretion in urine. MPS II has a wide spectrum of clinical manifestations ranging from mild to severe due to the level of Iduronate 2-Sulfatase/IDS enzyme. Retroviral-mediated Iduronate 2-Sulfatase/IDS gene transfer into lymphoid cells would be a promising gene therapeutic strategy.

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