Recombinant IDS protein (His tag)

Catalog Number	537620
Synonyms	Alpha-L-iduronate sulfate sulfatase; Idursulfase
Species	Human
Expression System	E. coli
Accession	P22304
Molecular Weight	Predictes a molecular mass of 12.75 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	456-550
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 456-550 aa (P22304) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Iduronate 2-sulfatase (EC 3.1.6.13) Fragment (residues 456-550) is a highly stable and soluble protein unit derived from the human lysosomal enzyme Idursulfase. This 95-amino acid fragment is engineered for structural and biochemical studies, offering researchers a reliable tool to investigate the enzyme's role in glycosaminoglycan catabolism. Iduronate 2-sulfatase is a lysosomal enzyme essential for the degradation of dermatan sulfate and heparan sulfate, two key glycosaminoglycans. By hydrolyzing sulfate groups from α-L-iduronate residues, it enables stepwise breakdown of these complex carbohydrates. The enzyme's localization within lysosomes underscores its critical role in cellular waste processing, with deficiencies linked to impaired catabolism. This fragment corresponds to a structurally defined region (residues 456-550) of the full-length protein, facilitating targeted analysis of its functional domains without compromising stability.