Recombinant Protein Technical Manual

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

RPES4611

Product Data:

Product SKU: RPES4611

Size: 20µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_000193.1

Protein Information:

Molecular Mass:	61 kDa
AP Molecular Mass:	85-95 Kda
Tag:	C-His
Bio-activity:	Measured by its ability to hydrolyze the substrate 4-Nitrocatechol Sulfate (PNCS). The specific activity is > 1.0 pmoles/min/µg.
Purity:	> 87 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg as determined by the LAL method.
Storage:	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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	IDS;MPS2;SIDS

Immunogen Information:

Sequence: Met 1-Pro 550

Background:

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.