

Product datasheet for **RC219187**

Iduronate 2 sulfatase (IDS) (NM_000202) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Iduronate 2 sulfatase (IDS) (NM_000202) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Iduronate 2 sulfatase
Synonyms:	ID2S; MPS2; SIDS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC219187 representing NM_000202
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCCCACCCCGACCGCCGAGGCCTTCTCTGGCTGGTCTGTTCTGAGCTCCGTCTCGCTCGCCC
 TCGGATCCGAAACGCAGGCCAACTCGACCACAGATGCTCTGAACGTTCTTCTCATCATCGTGGATGACCT
 GCGCCCTCCCTGGGCTGTTATGGGGATAGCTGGTGAGGTCCCCAAATATTGACCAACTGGCATCCAC
 AGCCTCTCTTCCAGAATGCCTTTGCGCAGCAAGCAGTGTGCGCCCCGAGCCGCTTTCTTCTCACTG
 GCAGGAGACCTGACACCACCCGCTGTACGACTTCAACTCCTACTGGAGGGTGCACGCTGAAAATTCTC
 CACCATCCCCAGTACTCAAGGAGAATGGCTATGTGACCATGTCGGTGGGAAAAGTCTTCCACCCTGGG
 ATATCTTCTAACCATACCGATGATTCTCCGTATAGCTGGTCTTTTCCACCTTATCATCTTCTCTGAGA
 AGTATGAAAACACTAAGACATGTCGAGGGCCAGATGGAGAATCCATGCCAACCTGCTTTGCCCTGTGGA
 TGTGCTGGATGTTCCCGAGGGCACCTTGCTGACAAACAGAGCACTGAGCAAGCCATACAGTTGTTGGAA
 AAGATGAAAACGTCAGCCAGTCCTTTCTTCTGGCCGTTGGGTATCATAAGCCACACATCCCTTCAGAT
 ACCCAAGGAATTCAGAAGTTGTATCCCTTGGAGAACATCACCTTGGCCCCGATCCCGAGGTCCTCGA
 TGGCCTACCCCTGTGGCCTACAACCCCTGGATGGACATCAGGCAACGGGAAGACGTCCAAGCCTTAAAC
 ATCAGTGTGCCGTATGGTCCAATTCCTGTGGACTTTCAGCGGAAAATCCGCCAGAGCTACTTTGCCCTGTG
 TGTCAATTTGGATACACAGGTCGGCCGCTCTTGTAGTCTTTGGACGATCTTCAGCTGGCCAACAGCAC
 CATCATTGCATTTACCTCGGATCATGGTGGGCTCTAGGTGAACATGGAGAATGGCCAAATACAGCAAT
 TTTGATGTTGCTACCCATGTTCCCTGATTTCTATGTTCTGGAAGGACGGCTTCACTTCCGGAGGCAG
 GCGAGAAGCTTTCCCTTACCTCGACCTTTTGTATTCCGCTCACAGTTGATGGAGCCAGGCAGGCAATC
 CATGGACCTTGTGGAACCTGTGTCTCTTTTCCACGCTGGCTGGACTTGCAGGACTGCAGGTTCCACCT
 CGCTGCCCGTTCCTTCACTTACGTTGAGCTGTGCAGAGAAGGCAAGAACCTTCTGAAGCATTTTCGAT
 TCCGTGACTTGGAAAGAGGATCCGTACCTCCCTGGTAATCCCGTGAAGTATTGCCTATAGCCAGTATCC
 CCGGCCTCAGACATCCCTCAGTGGAAATCTGACAAGCCGAGTTAAAAGATATAAAGATCATGGGCTAT
 TCCATACGCACCATAGACTATAGGTACTGTGTGGTGGCTTCAATCCTGATGAATTTCTAGCTAACT
 TTTCTGACATCCATGCAGGGGAAGTATTTTGTGGATTCTGACCCATTGCAGGATCACAATATGTATAA
 TGATCCCAAGGTGGAGATCTTTCCAGTTGTTGATGCCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC219187 representing NM_000202
 Red=Cloning site Green=Tags(s)

MPPRTRGRLLWLGLVLSVVCVALGSETQANSTTDALNVLLIIIVDDLRLPSLGCYGDKLVRSPNIDQLASH
 SLLFQNAFAQAVCAPSRVSFLTGRRPDTRLTYDFNSYWRVHAGNFSTIPQYFKENGYVTMSVGVFHPG
 ISSNHTDDSPYSWSFPPYHPSSEKYENTKTCRPGDDELHANLLCPVDVLDVPEGLPDKQSTEQAIQLLE
 KMKTSASPFLLAVGYHKPHIPFRYPKEFQKLYPLENITLAPDPEVPDGLPPVAYNPWMDIRQREDVQALN
 ISVPYGPVDFQRKIRQSYFASVSYLDTQVGRLLSALDDLQLANSTIIAFTSDHGVALGEHGEWAKYSN
 FDVATHVPLIFYVPGRTASLPEAGEKLPYLDPFDSASQLMEPGRQSMDELVELVSLFPTLAGLAGLQVPP
 RCPVPSFHVLCREGKLLKHFRFRDLEEDPYLPGNPRELIAYSQYPRPSDIPQWNSDKPSLKDIIKIMGY
 SIRTIDYRYTVWVGFNPDEFLANFSDIHAGELYFVSDPLQDHNMYNDSQGGDLFQLLMP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6208_d08.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_000202

ORF Size: 1650 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_000202.8](#)

RefSeq Size: 2504 bp

RefSeq ORF: 1653 bp

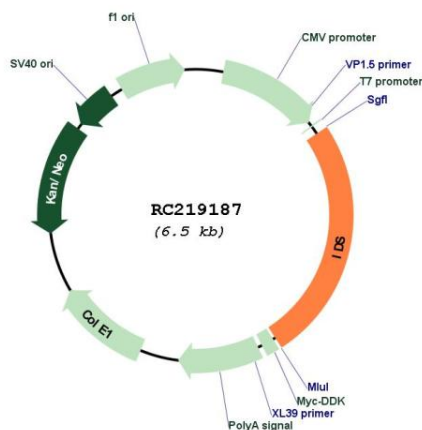
Locus ID: 3423

UniProt ID: [P22304](#)

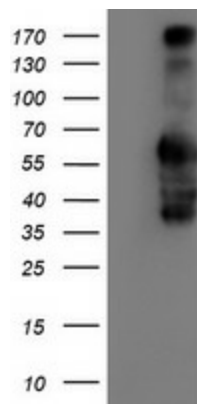
Cytogenetics: Xq28
Domains: Sulfatase
Protein Families: Druggable Genome
Protein Pathways: Glycosaminoglycan degradation, Lysosome, Metabolic pathways
MW: 61.87 kDa

Gene Summary: This gene encodes a member of the sulfatase family of proteins. The encoded preproprotein is proteolytically processed to generate two polypeptide chains. This enzyme is involved in the lysosomal degradation of heparan sulfate and dermatan sulfate. Mutations in this gene are associated with the X-linked lysosomal storage disease mucopolysaccharidosis type II, also known as Hunter syndrome. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed. [provided by RefSeq, Jan 2016]

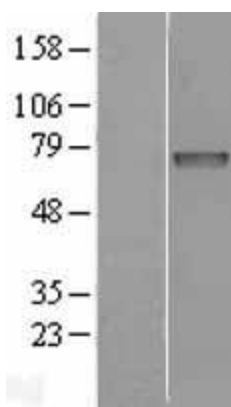
Product images:



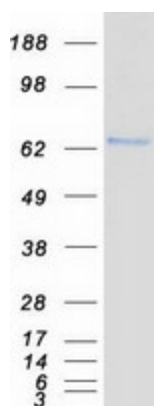
Circular map for RC219187



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY IDS (Cat# RC219187, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-IDS (Cat# [TA504277]). Positive lysates [LY424863] (100ug) and [LC424863] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY424863]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219187 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified IDS protein (Cat# [TP319187]). The protein was produced from HEK293T cells transfected with IDS cDNA clone (Cat# RC219187) using MegaTran 2.0 (Cat# [TT210002]).