

Product datasheet for **SC120050**

Iduronate 2 sulfatase (IDS) (NM_000202) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Iduronate 2 sulfatase (IDS) (NM_000202) Human Untagged Clone
Tag:	Tag Free
Symbol:	Iduronate 2 sulfatase
Synonyms:	ID2S; MPS2; SIDS
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC120050 sequence for NM_000202 edited (data generated by NextGen Sequencing)

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ATGCCGCCACCCCGACCCGCGGAGGCCTTCTCTGGCTGGGTCTGGTTCTGAGCTCCGTC
TGCGTCGCCCTCGGATCCGAAACGCAGGCCAACTCGACCACAGATGCTCTGAACGTTCTT
CTCATCATCGTGGATGACCTGCGCCCTCCCTGGGCTGTTATGGGGATAAGCTGGTGAGG
TCCCAAAATATTGACCAACTGGCATCCACAGCCTCCTCTCCAGAATGCCTTTGCGCAG
CAAGCAGTGTGCGCCCGAGCCGCTTTCTTCCCTCACTGGCAGGAGACCTGACACCACC
CGCTGTACGACTTCAACTCCTACTGGAGGGTGCACGCTGGAAACTTCTCCACCATCCCC
CAGTACTTCAAGGAGAATGGCTATGTGACCATGTGCGGTGGGAAAAAGTCTTTCACCCTGGG
ATATCTTCTAACCATAACCGATGATTCTCCGTATAGCTGGTCTTTTCCACCTTATCATCCT
TCCTCTGAGAAGTATGAAAACACTAAGACATGTCGAGGGCCAGATGGAGAAGTCCATGCC
AACCTGCTTTGCCCTGTGGATGTGCTGGATGTTCCCGAGGGCACCTTGCCTGACAAAACAG
AGCACTGAGCAAGCCATACAGTTGTTGGAAAAGATGAAAACGTCAGCCAGTCTTTCTTC
CTGGCCGTTGGGTATCATAAGCCACACATCCCCTTCAGATACCCCAAGGAATTTGAGAAG
TTGTATCCCTTGGAGAACATCACCTGGCCCCGATCCCGAGGTCCCTGATGGCCTACCC
CCTGTGGCCTACAACCCCTGGATGGACATCAGGCAACGGGAAGACGTCCAAGCCTTAAAC
ATCAGTGTGCCGTATGGTCCAATTCCTGTGGACTTTCAGCGGAAAATCCGCCAGAGCTAC
TTTGCCTCTGTGCATATTTGGATACACAGGTCGGCCGCCTTTGAGTGTCTTTGGACGAT
CTTCAGCTGGCCAACAGCACCATCATTGCATTTACCTCGGATCATGGGTGGGCTCTAGGT
GAACATGGAGAATGGGCCAAATACAGCAATTTTGGATGTTGCTACCCATGTTCCCTGATA
TTCTATGTTCTGGAAGGACGGCTTCACTTCCGGAGGCAGGCGAGAAGCTTTTCCCTTAC
CTCGACCTTTTATTCCGCCTCACAGTTGATGGAGCCAGGCAAGCAATCCATGGACCTT
GTGGAACCTGTGCTCTTTTTCCACGCTGGCTGGACTTGCAGGACTGCAGGTTCCACCT
CGCTGCCCGGTTCCCTTCAATTTACGTTGAGCTGTGCAGAGAAGGCAAGAACCTTCTGAAG
CATTTTTCGATTCCGTGACTTGAAGAGGATCCGTACCTCCCTGGTAATCCCCGTGAAGT
ATTGCCTATAGCCAGTATCCCCGGCCTTCAGACATCCCTCAGTGGAAATCTGACAAGCCG
AGTTTAAAGATATAAGATCATGGGCTATTCCATACGCACCATAGACTATAGGTATACT
GTGTGGTTGGCTTCAATCCTGATGAATTTCTAGCTAATTTTCTGACATCCATGCAGGG
GAACTGTATTTGTGGATTCTGACCCATTGCAGGATCACAATATGTATAATGATTTCCAA
GGTGGAGATCTTTCCAGTTGTTGATGCCTTGA
    
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Clone variation with respect to NM_000202.5

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_000202 unedited
GTCAGGATTTTGTAAACGACTTCACTATAGGGCGGCCGGAATCGGCACGAGGGCGGGC
CCGGGCGGCGGCTGTGTTGCGCAGTCTTCATGGGTTCCCGACGAGGAGGTCTCTGTGGCT
GCGGCGGCGGCTGCTAACTGCGCCACCTGCTGCAGCCTGTCCCCGCGGCTCTGAAGCGGC
CGCGTCGAAGCCGAAATGCCGCCACCCCGACCCGCGCCGAGGCCTTCTCTGGCTGGGTCTG
GTTCTGAGCTCCGTCTGCGTCCGCTCGGATCCGAAACGCAGGCCAACTCGACCACAGAT
GCTCTGAACGTTCTTCTCATCATCGTGGATGACCTGCGCCCTCCCTGGGCTGTTATGGG
GATAAGCTGGTGAGGTCCCCAAATATTGACCAACTGGCATCCACAGCCTCCTCTCCAG
AATGCCTTTGCGCAGCAAGCAGTGTGCGCCCGAGCCGCTTTCTTCTCACTGGCAGG
AGACCTGACACCACCCGCTGTACGACTTCAACTCCTACTGGAGGGTGCACGCTGGAAC
TTCTCCACCATCCCCAGTACTTCAAGGAGAATGGCTATGTGACCATGTGCGGTGGGAAAA
GTCTTTCACCCTGNGATATCTTCTAACCATAACCGATGATTCTCCGTATAGCTGGTCTTTT
CCACCTTATCATCCTTCCCTGAGAAGTATGAAAACACTAAGACATGTCGAGGGCCAGAT
GGAGAAGTCCATGCCACCCCTGCTTGCCTGTGGATGTGCTGGATGTTCCCGAGGGACCT
TTGCCTGACAAAACAGAGCACTTGAGCAGCCATACAGTTGTTGGGAAAAGATGAAACGTCAG
CCAGTCTTTTCTTCTGGGCGGTTGGTATCATAAGCCACACCATCCCCTTCAAATACCC
CAAGGATTTGAGAAGTGTATCCCTTGA
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_000202 unedited ATGACCGCGCCCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTGTAGATATTTAATA TTTATTTAGAAAGCTATTGACACTTCTGATGACTACTGATAACTGAGAAGATTCAACATG TTATAAATATGAGTTGTAATAATTCCATCCCTTTGAGATTATATACACTAAGCTTTTTA CTACCACTGGCCTTTCTGGATACTTTTCATTTAGAGAATATAGAACTACATTCTGGGAG ATTGACAATGACCTAATATTACACTAATGAAAAGTCTTCACAGTCCTCAAATAATTTAG AATTTAATGTTTTCTTTAATAAGCAATTAAGGATGGAATATTTTCTGCCTCCTGAATAAAT ACATGTCTGTAACCAACCATCCCTAAAGAAGGATACTAATATATTTTGTGATTCAATC CACCCATGGATATAGTCACATCTTTAAATGTTTTCCAGTGTGAACAACAGTCTTTAATA GATGGCCATTGAGTTCAAGGGTCATATTATTTGCTAACAAATTATTATTAATTATAAAC AAAATAATCAGGAACCTAGTGTGGTGCCTAGTTTGATATATGATTACTTTTTGAAATGCA CTAATTCACAAATAATGAAAGTATTCTTTGTGTATAATGTTATGTTGGTTATTATGT ATGGTCTTCGTATCCAAAGGTATGACATAACTTGAGTTTGTGTTGTTGATTTATTCAG TAAATAAGCCGTAACCTGTTTTAAAAAGAGGAAATTAATAAAAAACTGGTCCAATTACCA ATTATAAATTTAATAAAGACTAAACGAANAGGNNTTGGCTGNTACATATTNCTCAGGCC AAAAATGTGATGCATGTTTGGATTAACCTAGCCCTNNCAGCTGCTNCATATTATGGNNTAT CACAAAACGACAGCTTTAACTCTNCTCTTACA
Restriction Sites:	NotI-NotI
ACCN:	NM_000202
Insert Size:	2830 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none"> 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_000202.2 , NP_000193.1
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

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]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (a). **Sequence Note:** This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.