

Product datasheet for **RN214502**

Ispd (NM_001008386) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ispd (NM_001008386) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Ispd
Synonyms:	Nip
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >RN214502 representing NM_001008386
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGTCCGGGCGTGCAGCAGGCCCGCTGAGCCTCGGCATTGCGTGAGCGGCCGGGCGGCCGGGTT
 TAGCGTTCCTGGGCTCCATTGTCCGCTGCCGGGCGGAGCCCGGAGCCGATTGGAAGTGTAGCCGC
 TGTGCTGCCGGCTGGGGCTGCGGAGAAAGGATGGGCGTCCGCACCCGAAAGCAGTTCTGCCGGTCTG
 GAGAGGCCGCTCATCAGCTACACACTGCAGGCTATGGAGAGAGTATGCTGGATAAAGGACATTGTTGTGA
 CAGTGACAGGGGAGAACATGGAAGCGATGAGAAGCATCATTAGAGGTATGGGCATAAGCGCATCTCACT
 AGCTGAGGCCGGAGCCACGCGCCACAGATCAATTTTCAATGGACTGAAAGCCCTGCCAGAAGATCAGCCA
 GGCTGTGAACTACTAGACCAGAAGTTGTGATTATCCACGATGCCGTGAGACCTTTTGTGAGGAAGATA
 TCCTCCTGAGAGTTGCTAGCAGTAAGGAGCATGGGGCAGCAGGCAATTGACCTCTGGTGTCCAC
 TGTGTCAGTCCGTCTGCTGATGGTCACCTAGACCACTACTGGACCGTCCCAAGCACAGGGCAAGCGAA
 ATGCCCAAGGCTTTTCACTTTGATGTGATCTATGAAGCGTATCAGAAGTGTAGTATTTGACTTGGAA
 TTGGAACAGAGTCTTGCAGTTGGCCCTAAAATACTGTCACAGGAAAGCAAACTTGTAGAAGGGACCCC
 TGACCTCTGGAAGGTGACCTACAAAAGACCTGTGTGCAGCTGAAGCCATGATTAAGGAAAAATTTCA
 CAAGAGATTTGTGTGGTTCGTGAACACAAAAGATGAAGAATCTGTAGGACATCTTCTTGAGGAAGTCTAA
 GAAATGAACTAAATTGTATTAAGTCACATCCACAGTTTTGGATCGCACCAGTGGAGACATTGAGAACTT
 CATAGACCAATGCTACAGTTTCACTGTGTGAATGTTGTGTCCTGAGAGTCGAGAAACCAGGAAGTTA
 CTGAGTATCCTCGAAGAGAGCAGCCTTCTTCTGTATCCCGTCGTTGTCGTTTTGGTGCATTGCTTTG
 ATTTACGGTAGTGCCGCTCGCTCAGAAGATGGAGAACCCTGGTGGATCAGGGAATTAGCAAAGGAAGC
 AAAAGGAAGGAATGTTCTATTAAGTGGAGTCTCTCTAAATCACTCACAGGATGAGCAGAAGCTACAAGAG
 AGTTTAGTACAAAGTGCAGCCATCATAGCTGCCTTGGTTAAGGAAAGAAATTCTGCACTCGTCGGGCAGC
 TCCTGGTGGCA**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001008386

Insert Size: 1344 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:

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_001008386.1](#), [NP_001008387.1](#)

RefSeq Size: 2645 bp

RefSeq ORF: 1344 bp

Locus ID: 493574

UniProt ID: [Q5S6T3](#)

Cytogenetics: 6q16-q21

Gene Summary: Cytidylyltransferase required for protein O-linked mannosylation (By similarity). Catalyzes the formation of CDP-ribitol nucleotide sugar from D-ribitol 5-phosphate. CDP-ribitol is a substrate of FKTN during the biosynthesis of the phosphorylated O-mannosyl trisaccharide (N-acetylgalactosamine-beta-3-N-acetylglucosamine-beta-4-(phosphate-6-)mannose), a carbohydrate structure present in alpha-dystroglycan (DAG1), which is required for binding laminin G-like domain-containing extracellular proteins with high affinity (By similarity). Shows activity toward other pentose phosphate sugars and mediates formation of CDP-ribulose or CDP-ribose using CTP and ribulose-5-phosphate or ribose-5-phosphate, respectively (By similarity). Not Involved in dolichol production (By similarity).[UniProtKB/Swiss-Prot Function]