

Product datasheet for **RG208907**

DIS3 (NM_014953) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DIS3 (NM_014953) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DIS3
Synonyms:	2810028N01Rik; dis3p; EXOSC11; KIAA1008; RRP44
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG208907 representing NM_014953
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTCAAGTCCAAGACGTTCTTAAAAAGACCCGGGCGGGCGGCGTGATGAAGATCGTGCGCGAGCACT
 ACCTGCGAGACGACATCGGCTGCGGTGCGCCCGGTGCGCAGCGTGTGGAGGGGCGCACGAGGGGCCGGC
 CCTGGAGCCGACGCCAGGACCCGCGCAGCAGCGTCTGCCCGCAACCGCACTACTTGTGCCCGCACT
 AATGTGTTACTGCACCAGATTGATGTTCTTGAGGACCCTGCCATCAGGAATGTAATTGTGCTACAAACAG
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 GAAGCATTCTATACTTTCACTAATGAGCACCATAGAGAACTATGTAGAACAAGAACAGGGAGAAAAAT
 GCTAATGACAGGAATGATAGAGCGATTCGAGTAGCAGCAAATGGTACAATGAACATTTGAAAAAATGT
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 AGGAATACCAGCTTTCCTTGTGAAGAATATGTAAGAGCCTAACTGCTAACCCCGAACTCATAGATCGT
 CTTGCTTGTGTTGCTGAAGAAGGAATGAAATAGAAAAGTGAAAAATAATATTTTCAGAGCATCTCCCT
 TAAGTAAGCTACAGCAAGGCATAAAATCTGGTACATACCTTCAAGGAACATTTAGAGCTAGCAGGGAAAA
 TTAAGTGAAGCTACAGTATGGATTTCATGGCGACAATGAAGAAAAAAGAGATAATCTTACAGGGACTT
 AAACATTTAAACAGAGCTGTTCCAGGAATATTGTGGCTGTGGAGCTTCTCCCAAGAGTCAGTGGGTAG
 CACCATCTTCTGTGGTTTTACATGATGAAGGTCAAATGAAGAAGATGTGGAGAAAGAAGAAGAGAGAGA
 ACGAATGCTTAAGACTGCTGAAGCGAGAAAATGTTGAAGCCTACAGGTAGAGTTGTAGGAATAAAAA
 AGGAATGGAGACCATAATTGGCATGCTTTCGAAGTCTGACATTAAGGAGTCAAGAAGACATCTCTTTA
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 CACTAGTCTCCGTGGACTGAATAAACTAGCCAAAATCTGAAGAAAAGAAGGATTGAAAAAGGGCTTTG
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 AATTCATGAGGAATTTCTGAACATGCTGCTGCTCGAAAACATCCTGCTCCACCTCCATCAAATTAATGAA
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 ATCATGTTAGACTCATCTAATCTCAACATCAGAAGATCCGAATGTCCTGGTAGAACACAGATACCAG
 GAATAAGCATTCTACTGATACTTCAAACATGGACCTTAATGGACCAAGAAAAAGAAGTGAAGCTTGG
 AAAA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG208907 representing NM_014953
 Red=Cloning site Green=Tags(s)

MLKSKTFLKKTRAGGVMKIVREHYLRDDIGCGAPGCAACGGAHEGPALEPQPQDPASSVCPQPHYLLPDT
 NVLLHQIDVLEDPAIRNVIVLQTVLQEVNRNSAPVYKIRIDVTNNQEKHFYFTTNEHHRETYVEQEEN
 ANDRNDRAIRVAAKWYNEHLKMSADNLQVIFITNDRRNKEKAIIEGIPAFTECEYVKSILTANPELIDR
 LACLSEEGNEIESGKIIFSEHLPLSKLQQGIKSGTYLQGTFRASRENYLEATVWIHGDNENKEIILQGL
 KHLNRAVHEDIVAVELLPKSQWVAPSSVVLHDEGQNEEDVEKEEERERMLKTAVSEKMLKPTGRVVGIIK
 RNWRPYCGMLSKSDIKESRRHLFTPADKRIPIRIETRQASTLEGRRIIVAIDGWPRNSRYPNGHFVRNL
 GDVGEKETETEVLLEHDVPHQPFSAVL SFLPKMPWSITEKDMKNREDLRHLCSVDPPGCTDIDDAL
 HCRELENGNLEVGVIADVSHFIRPGNALDQESARRGTTVYLCEKRIDMVPELLSSNLCSLKCDVDLAF
 SCIWEMNHNAEILKTKFTKSVINSKASLYAEAQLRIDSANMDDITTSRLGNLAKILKKRIEKGAL
 TLSSPEVRFHMDSETHDPIDLQTKELRETNSMVEEFMLLANISVAKKIHEEFSEHALLRKHPAPPPSNEY
 ILVKAARSRLNIKTDTAKSLAESLDQAESPTFPYLNTLLRILATRCMMQAVYFCSGMDNDFHHYGLASP
 IYTHFTSPIRRYADVIVHRLLAVAIGADCTYPELTDKHKLADICKNLNFRHKMAQYAQRASVAFHTQLFF
 KSKGIVSEEAAILFVRKNAIVVLIIPKYGLEGTVFEEKDKPNPQLIYDDEIPSLKIEDTVFHVFDKVKVK
 IMLDSSNLQHQIRMSLVEPQIPGISIPTDTSNMDLNGPKKKKMKLGK

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

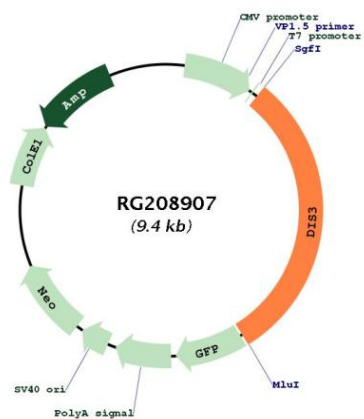


ACCN: NM_014953

ORF Size: 2874 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:	<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_014953.2 , NP_055768.2
RefSeq Size:	7320 bp
RefSeq ORF:	2877 bp
Locus ID:	22894
UniProt ID:	Q9Y2L1
Cytogenetics:	13q21.33
Domains:	RNB, PINc
Protein Pathways:	RNA degradation
Gene Summary:	Putative catalytic component of the RNA exosome complex which has 3'->5' exoribonuclease activity and participates in a multitude of cellular RNA processing and degradation events. In the nucleus, the RNA exosome complex is involved in proper maturation of stable RNA species such as rRNA, snRNA and snoRNA, in the elimination of RNA processing by-products and non-coding 'pervasive' transcripts, such as antisense RNA species and promoter-upstream transcripts (PROMPTs), and of mRNAs with processing defects, thereby limiting or excluding their export to the cytoplasm. The RNA exosome may be involved in Ig class switch recombination (CSR) and/or Ig variable region somatic hypermutation (SHM) by targeting AICDA deamination activity to transcribed dsDNA substrates. In the cytoplasm, the RNA exosome complex is involved in general mRNA turnover and specifically degrades inherently unstable mRNAs containing AU-rich elements (AREs) within their 3' untranslated regions, and in RNA surveillance pathways, preventing translation of aberrant mRNAs. It seems to be involved in degradation of histone mRNA. DIS3 has both 3'-5' exonuclease and endonuclease activities.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG208907