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Product datasheet for RG206759

RDHE2 (SDR16C5) (NM_138969) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RDHE2 (SDR16C5) (NM_138969) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RDHE2
Synonyms:	EPHD-2; RDH#2; RDH-E2; RDHE2; retSDR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG206759 representing NM_138969
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCTTTCAACCTGCAATCATCAAAGAAACTGTTCATTTTCTTAGGAAAATCACTGTTTAGTCTTCTGG
AGGCTATGATTTTTGCCTTACTCCCAAAGCCACGGAAGAACGTTGCTGGTGAAATAGTCCTCATCACAGG
TGCTGGAAGTGGACTCGGAAGGCTCTTAGCCTTGCAGTTTGCCCGGCTGGGATCTGTTCTTGTTCTCTGG
GATATCAATAAGGAGGGGAATGAGGAAACATGTAAGATGGCTCGGGAAGCTGGAGCCACAAGAGTGCACG
CCTATACCTGCGATTGCAGCCAAAAGGAAGGAGTGTATAGAGTAGCCGACCAGGTTAAAAAAGAAGTCGG
CGATGTTTCCATCCTAATCAACAATGCCGGAATCGTAACAGGCAAAAAGTTCCTTGACTGTCCAGATGAG
CTTATGGAAAAGTCATTTGATGTGAATTTCAAAGCACATTTATGGACTTATAAAGCCTTTCTACCTGCTA
TGATTGCTAATGACCATGGACATTTGGTTTGCATTTCAAGTTCAGCTGGATTAAGTGGAGTAAATGGGCT
GGCAGATTACTGTGCAAGTAAATTTGCAGCCTTTGGGTTTGCTGAATCTGTATTTGTAGAAACATTTGTC
CAAAAACAAAAGGGGATCAAAACCACGATTGTGTGCCCCTTTTTTATAAAAACTGGAATGTTTGAAGGTT
GTACTACAGGCTGTCCTTCTCTGTTGCCAATTCTGGAACCAAAATATGCAGTTGAAAAAATAGTAGAAGC
TATTCTACAAGAAAAAATGTACTTGTATATGCCAAAGTTGTTATACTTCATGATGTTTCTTAAAAGCTTT
TTGCCCCTCAAGACAGGACTGCTTATAGCTGACTATTTGGGCATCCTTCATGCAATGGATGGCTTTGTTG
ACCAAAAGAAGAAGCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

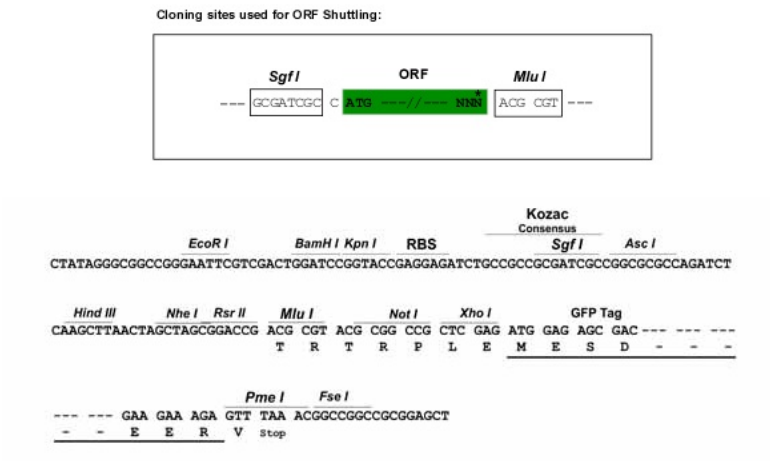
>RG206759 representing NM_138969
Red=Cloning site Green=Tags(s)

MSFNLQSSKKLFIFLGKSLFSLLEAMIFALLPKPRKNVAGEIVLITGAGSGLGRLLALQFARLGSVLVLW
DINKEGNEETCKMAREAGATRVHAYTCDCSQKEGVYRVADQVKKEVGDVSILINNAGIVTGKKFLDCPDE
LMEKSFDVNFKAHLWTYKAFLPAMIANDHGHLVCISSSAGLSGVNGLADYCASKFAAFGFAESVFVETFV
QKQKGIKTTIVCPFFIKTGMFEGCTTGCPSLLPILEPKYAVEKIVEAILQEKMYLYMPKLLYFMMFLKSF
LPLKTGLLIADYLGILHAMDGFVDQKKKL

TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_138969

ORF Size: 927 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_138969.3, NP_620419.2

RefSeq Size: 3039 bp

RefSeq ORF: 930 bp

Locus ID: 195814

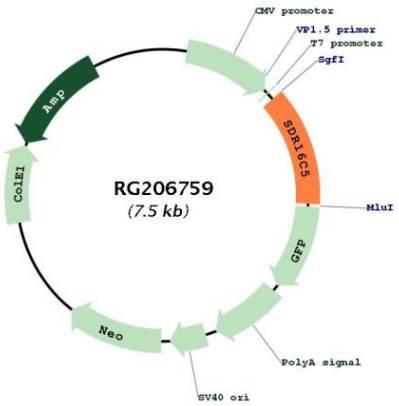
UniProt ID: Q8N3Y7

Cytogenetics: 8q12.1

Protein Families: Druggable Genome

Gene Summary: This gene encodes a member of the short-chain alcohol dehydrogenase/reductase superfamily of proteins and is involved in the oxidation of retinol to retinaldehyde. The encoded protein is associated with the endoplasmic reticulum and is predicted to contain three transmembrane helices, suggesting that it is an integral membrane protein. It recognizes all-trans-retinol and all-trans-retinaldehyde as substrates and exhibits a strong preference for NAD(+)/NADH as cofactors. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2015]

Product images:



Circular map for RG206759