

Product datasheet for MR226724

Ret (NM_009050) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ret (NM_009050) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ret
Synonyms:	c-Ret; PTC; RET9; RET51
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR226724 representing NM_009050 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGAAAGCGACGTCCGGCGCCGAGGGCTGGGGCTGAAGCTGATTTTGCTCCTGCCGCTGCTAGGAG
AAGCCCCACTGGGCTCTATTTCTCAAGGGATGCTTACTGGGAGAGGCTGTATGTAGACCAGCCAGCTGG
CACACCTCTGCTCTATGTCCATGCCCTACGGGATGCCCTGGAGAAGTGCCGAGCTTCCGCTGGGCCAG
CATCTCTATGGCGTCTACCGTACACGGTGCATGAGAATGACTGGATCCGCATCAATGAGACTACTGGCC
TTCTCTACCTCAATCAGAGCCTGGACCACAGTTCTCTGGGAACAGCTCAGCATCCGCAATGGTGGTTTCCC
CCTGCTACCATCTTCTCCAGGTCTTTCTGGGGTCCACAGCCAGAGAGAGGGAGAATGCCATTGGCCA
GGCTGTACCCGTGTACTTCTCCTTCAACGACACCTTCCCAAATTGTAGCTCCTTCAAAGCCAGG
ATCTCTGCATCCCAGAGACAGCCGTGCTCTTCCGAGTCAGGGAGAACAGGCCCTCCTGGCACCTTCTACCA
CTTCCACATGTTACCCGTGCAGTTCTTTGTCCCAACATCAGTGTGAAGTACAGTCTCTTAGGAGGGGAT
AGTCTGCCCTTCCGTTGTGACCCAGACTGCCTGGAGGTGAGCACTCGCTGGGCCCTGGATCGAGAGCTCC
GGGAGAAGTATGTCTGGAGGCTTTGTGCATAGTGGCAGGCCCTGGTCCCAACAAGAGACGGTGACTCT
GTCCTTCCAGTGACAGTGTATGATGAGGACGACTCGCGCCACCTTCTCTGGAGGTGTGGCACTGCC
AGCGCGTGGTGGAGTTTAAGCGGAAGGAGGGCACTGTGGTGGCCACCCTGCAGGTGTTTCGATGCGAGATG
TGGTGCCAGCGTCTGGGGAGCTGGTGAGACGGTACACAAACACACTCCTCTCAGGGGACTCCTGGGCCCA
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ACCATGCACAATTACAAGCTGATTCTCAACAGGAGCCTGTCTATCTCAGAGAGCCGAGTCTGCAGCTCG
CGGTCCTGGTCAACGACTCAGACTTCCAGGGCCCTGGGGCAGGTGGTATCCTCGTCTCCATTTCAACGT
GTCTGTACTGCCCGTACCCTGAACCTACCAGGGCCTACTCCTTCCAGTGAATAAGAGGGCCCGCCG
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ATTTGTAATGACACAGAGGCCCTGCGGCGACCTGAGTGCACCAAGCTTCACTACAGGTGGTAGCCACT



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GACCGGCAGACCCGCAGACAGACCCAGGCTTCGCTAGTGGTCACTGTGGAGGGGACATCCATTACTGAAG
 AAGTAGGCTGCCCAAGTCTGTGCAGTAAACAAGAGGCGCCCGAGTGTGAGGAATGTGGTGGCCTGGG
 TTCTCCAAGTGGCAGGTGCGAGTGGCGCCAGGGAGATGGTAAAGGGATCACCAGGAATCTCCACCTGC
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR226724 representing NM_009050
 Red=Cloning site Green=Tags(s)

MAKATSGAAGLGLKLI LLLPLLGEAPLGLYFSRDAYWERLYVDQPAQTPLL YVHALRDAPGEVPSFRLGQ
 HLYGVYRTRLHENDWIRINETTGLLYLNQSLDHSSWEQLSIRNGGFLLTIFLQVFLGSTAQREGCHWP
 GCTR VYFSFINDTFPNCSSFKAQDL CIPETA VSFVRVRENRPPTFYHFHMLPVQFLCPNISVKYSLGDD
 SLPFRCDPDCLEVSTRWALDRELREKYVLEALCIVAGPGANKETVTL SFPVTVYDEDDSAPTFSGGVGTA
 SAVVEFKRKEGTVVATLQVFDADVVPASGELVRRYTNTLLSGDSWAQQTFRVEHSPIETLVQVNNNSVRA
 TMHNYKLI LNRSL SISESRVLQAVL VNDSD FQGPAGGILVLFHNVSVLPVTLNLPRAYSFPVNRARR
 YAQIGKVCVENCQEFSGVSIQYKLPSSINCTALGVVTSPEDTSGTLFVNDTEALRRPECTKLQYTVVAT
 DRQTRRQTQASLVVTVEGTSITEEVGCPKSCAVNKRPECEECGLGSPTRCEWRQGDGKGITRNFSTC
 SPSTRTCPDGHCDAVESRDANICPDCLRADIVGGERGERQGIKAGYGINCFPDEKCFCEPEDSQGP
 LCDALCRTIITAAFLSII SILL SIFCVCHHHKHGKPPIASAEMTFCRPAQGFPI SYSSSGTRRPSLDS
 TENQVPVDSFKIPEDPKWEFPRKNLVLGKTLGEGEFKVVKATAFRLKGRAGYTTAVKMLKENASQSEL
 RDLLSEFNLLKQVNHPIKLYGACSDGPLELLIVEYAKYGSRLRGFLRDSRKIGPAYVSGGSRNSSLD
 HPDERVLTMGDLISFAWQISRGMQYLAEMKLVHRDLAARNILVAEGRKMKISDFGLSRDVEEDSYVKKS
 KGRIPVKWMAIESLFDHIYTTQSDVWSFVLLWEIVTLGGNPYPGIPPERLFNLLKTGHRMERPDNCSEE
 MYRMLQCWKQEPDKRPVFADISKDLEKMMVKSRYDLDLAASTPSDSL YDDGLSEEETPLVDCNNAPLP
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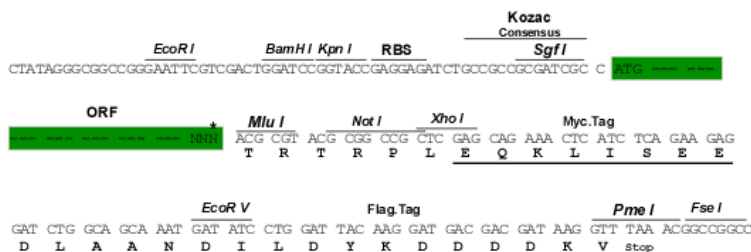
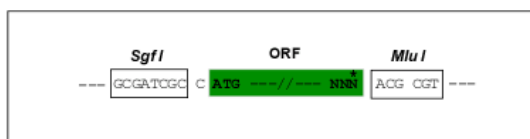
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9002_b11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_009050

ORF Size: 3345 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

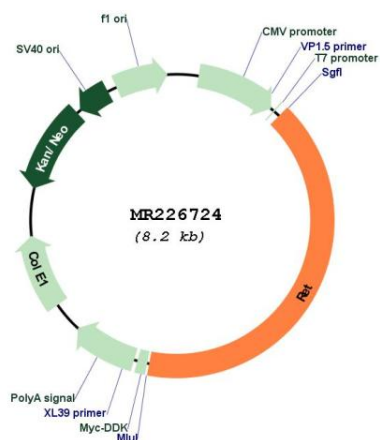
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_009050.2 , NP_033076.2
RefSeq Size:	6064 bp
RefSeq ORF:	3348 bp
Locus ID:	19713
UniProt ID:	P35546
Cytogenetics:	6 55.86 cM
MW:	124.3 kDa
Gene Summary:	<p>Receptor tyrosine-protein kinase involved in numerous cellular mechanisms including cell proliferation, neuronal navigation, cell migration, and cell differentiation upon binding with glial cell derived neurotrophic factor family ligands. Phosphorylates PTK2/FAK1. Regulates both cell death/survival balance and positional information. Required for the molecular mechanisms orchestration during intestine organogenesis; involved in the development of enteric nervous system and renal organogenesis during embryonic life, and promotes the formation of Peyer's patch-like structures, a major component of the gut-associated lymphoid tissue. Modulates cell adhesion via its cleavage by caspase in sympathetic neurons and mediates cell migration in an integrin (e.g. ITGB1 and ITGB3)-dependent manner. Involved in the development of the neural crest. Active in the absence of ligand, triggering apoptosis through a mechanism that requires receptor intracellular caspase cleavage. Acts as a dependence receptor; in the presence of the ligand GDNF in somatotrophs (within pituitary), promotes survival and down regulates growth hormone (GH) production, but triggers apoptosis in absence of GDNF. Regulates nociceptor survival and size. Triggers the differentiation of rapidly adapting (RA) mechanoreceptors. Mediator of several diseases such as neuroendocrine cancers; these diseases are characterized by aberrant integrins-regulated cell migration. Mediates, through interaction with GDF15-receptor GFRAL, GDF15-induced cell-signaling in the brainstem which induces inhibition of food-intake. Activates MAPK- and AKT-signaling pathways (PubMed:28846099).[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR226724