

Product datasheet for **RG234551**

CRAT (NM_001257363) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CRAT (NM_001257363) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CRAT
Synonyms:	CAT; CAT1; NBIA8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG234551 representing NM_001257363
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAAGGCTTCCAGCCGCTTCAAGGCACACCAGGATGCACTGCCACGGCTGCCCGTGCCCTCTCCAGC
 AGTCCCTGGACCACTACCTGAAGGCGCTGCAGCCCATCGTGAGTGAGGAGGAGTGGGCCACACCAAGCA
 GCTGGTGGATGAGTTTCAGGCCTCAGGAGGTGTAGGGGAGCGCCTGCAGAAGGGGCTGGAGCGTCGGGCC
 AGGAAGACGGAGAACTGGCTGTCTGAGTGGTGGCTCAAGACCGCCTACCTCCAGTACCGCCAGCCTGTGG
 TCATCTACTCGAGCCAGGCGTGATGCTACCAAGCAGGACTTCGTGGACCTGCAGGGTCAGCTCCGATT
 TGCTGCCAAACTCATTGAGGGTGTGTTGGATTTCAAGGTCATGATTGACAACGAGACCCTGCCCGTGGAG
 TACCTGGGGGGAAGCCACTGTGCATGAACCACTACTATCAGATCTTGTCTCCTGCCGAGTGCCGGGCC
 CCAAGCAGGACACAGTCAGCAACTTCAGCAAGACCAAGAAGCCTCCACGCACATCACCGTGGTACACAA
 CTACCAGTTTTTGTAGCTGGATGTGTACCACAGTGACGGGACACCCCTCACTGCGGATCAGATCTTTGTG
 CAGCTGGAGAAGATCTGGAACCTATCCCTACAGACCAACAAGGAGCCTGTGGGCATCCTCACCTCCAACC
 ACCGCAACTCCTGGGCCAAGGCATACAACACCCTCATCAAAGACAAGGTGAACCGGGATTCCGTGGCTC
 CATCCAGAAGAGCATCTTACCCTGTGCCTAGATGCAACCATGCCAGGGTCTCAGAAGACGTGTACCGC
 AGCCACGTGGCAGGCCAGATGCTGCATGGGGGCGGCAGGCTCAACAGCGGCAACCGCTGGTTCGACA
 AGACGCTGCAGTTCATCGTGGCAGAAGATGGCTCCTGTGGGCTTGTGTACGAGCATGCTGCAGCGGAGGG
 GCCCCTATTGTACCCTTCTGGACTATGTCATCGAGTACACGAAGAAACCCGAGCTTGTGCGGTCTCC
 ATGGTCCCCTGCCATGCCAAGAAGCTGCGGTTCAACATCACCCCGAGATCAAGAGCGACATCGAGA
 AGGCCAAGCAGAACCCTCAGCATCATGATCCAGGACCTGGATATCACCGTATGGTGTCCACCATTTTGG
 AAAAGACTTCCCCAAGTCGGAGAAGCTAAGCCAGATGCCTTATCCAGATGGCTTTCAGCTGGCCTAC
 TACAGGATCTACGACAGGCATGTGCCACCTATGAAAGTGCCTCCTGCCATGTTTACCTGGGCCGCA
 CCGACACCATCCGCTCGGCTTCCATGGACTCACTCACCTTTGTCAAGGCCATGGATGACTCCAGCGTCAC
 GGAGCACCAGAAGGTGGAGCTGCTGCGGAAGGCCGTGCAGGCCACCGAGGCTACACCGACCGGGCCATC
 CGCGGGGAGGCCTTTGTATCGACACCTGCTGGGCCTGAAGCTGCAGGCCATCGAGGACCTGGTGGATGC
 CCGACATCTTATGGACACCTCTACGCCATCGCCATGCACCTCCACCTCTCCACCGCCAGGTCCCTGC
 CAAGACAGACTGTGTATGTTCTTGGGCCGTTGGTCCCCGACGGCTACGGTGTCTGCTATAACCCCATG
 GAGGCCACATCAACTTCTCCCTGTGCGCCTACAACAGCTGCGCGGAGACCAACCGCCCGCCTGGCC
 ATTACCTGGAGAAGGCGCTCCTGGACATGCGTGCCTGCTGCAGAGCCACCCCGGGCCAAGCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG234551 representing NM_001257363
 Red=Cloning site Green=Tags(s)

MKASSRFKAHQDALPRLVPVPLQQSLDHYLKALQPIVSEEEWAHTKQLVDEFQASGGVGERLQKGLERRA
 RKTENWLSEWNLKAYLQYRQPVIYSSPGVMLPKQDFVDLQGGQLRFAAKLIEGVLDKVMIDNETLPVE
 YLGGKPLCMNQYYQILSSCRVPGPKQDVSNSFKTKKPPHITVHVNYQFFELDVYHSDGTLTADQIFV
 QLEKIWNSSLQTNKEPVGILTSNHRNSWAKAYNTLIKDKVNRDSVRSIQKSIFTVCLDATMPRVSEDVYR
 SHVAGQMLHGGGSRNLNSGNRWFDKTLQFIVAEDGSCGLVYEHAAGPPIVTLDDYVIEYTKKPELVRS
 MVPLPMPKRLRFNITPEIKSDIEKAKQNL SIMIQDLITVMVFHFGKDFPKSEKLSDFIQMALQLAY
 YRIYQACATYESASLRMFHLGRDITIRSASMDSLTFVKAMDDSSVTEHQKVELLRKAVQAHRGYTDRAI
 RGEAFDRHLLGLKLQAIEDLVSMPIFMDTSYAIAMHFLSTSQVPAKTDCVMFFGPVVPDGYGVCYNPM
 EAHINFSLSAYNSCAETNAARLAHYLEKALLDMRALLQSHPRAKL

TRTRPLE - GFP Tag - V

Restriction Sites:

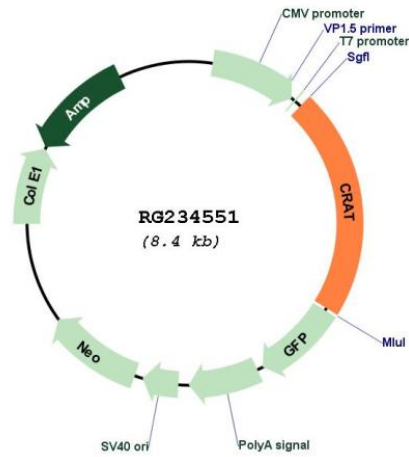
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001257363

ORF Size: 1815 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_001257363.2
RefSeq Size:	2865 bp
RefSeq ORF:	1818 bp
Locus ID:	1384
Cytogenetics:	9q34.11
Protein Families:	Druggable Genome
Gene Summary:	This gene encodes carnitine O-acetyltransferase, a member of the carnitine acyltransferase family and a key metabolic pathway enzyme which plays an important role in energy homeostasis and fat metabolism. This enzyme catalyzes the reversible transfer of acyl groups from an acyl-CoA thioester to carnitine and regulates the ratio of acyl-CoA/CoA. It is found in both the mitochondria and the peroxisome. Alternative splicing results in transcript variants encoding different isoforms that may localize to different subcellular compartments. [provided by RefSeq, Oct 2016]