

Product datasheet for **RG209263**

CAT1 (SLC7A1) (NM_003045) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CAT1 (SLC7A1) (NM_003045) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC7A1
Synonyms:	ATRC1; CAT-1; ERR; HCAT1; REC1L
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG209263 representing NM_003045
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGGGTGCAAAATCCTGCTCAACATTGGGCAGCAGATGCTGCGGCGGAAGTGGTGGACTGTAGCCGGG
 AGGAGACGCGGCTGTCTGCTGCCTGAACACTTTTGATCTGGTGGCCCTCGGGGTGGGCAGCACACTGGG
 TGCTGGTGTCTACGTCCTGGCTGGAGCTGTGGCCCGTGAGAATGCAGGCCCTGCCATTGTCATCTCCTTC
 CTGATCGCTGCGCTGGCCTCAGTGTGGCTGGCCTGTGCTATGGCGAGTTTGGTGTCTGGGTCCCAAGA
 CGGGCTCAGCTTACCTCTACAGCTATGTCACCGTTGGAGAGCTCTGGGCCTTCATCACCGCTGGAACCT
 AATCCTCTCTACATCATCGTACTTCAAGCGTAGCGAGGGCCTGGAGCGCCACCTTCGACGAGCTGATA
 GGCAGACCCATCGGGGAGTTCTCACGGACACACATGACTCTGAACGCCCCGCGTGTGGCTGAAAACC
 CCGACATATTCGAGTGATCATAATTCTCATCTTGACAGGACTTTAACTCTTGGTGTGAAAGAGTCGGC
 CATGGTCAACAAAATATCACTTGTATTAACGCTCTGGTCTGGGCTTCATAATGGTGTGAGGATTTGTG
 AAAGGATCGGTTAAAACTGGCAGCTCACGGAGGAGGATTTTGGGAACACATCAGGCCGTCTCTGTTTGA
 ACAATGACACAAAAGAAGGGAAGCCCGGTGTTGGTGGATTGATGCCCTTCGGGTTCTCTGGTGTCTGTG
 GGGGCGAGCGACTTGCTTCTATGCCCTTCGTGGGCTTTGACTGCATCGCCACCACAGGTGAAGAGGTGAAG
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 CTTCTAGGTTCCATGTTCCCATGCCTCGGTTATCTATGCCATGGTGGATGAGGACTGCTATTTAAAT
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 CCTCTGTGCCGTGGTACGGGCGTATCTGGAGGACCCGAGAGCAAGCAAGCTCTCATTAAAGTT
 CCCTTCTGCCAGTGTCCCATCTGAGCATCTTCGTGAACGTCTATCTCATGATGCAGCTGGACCAGG
 GCACCTGGGTCGGTTTGTGTGTGGATGCTGATAGGCTTCATCATCTACTTTGGCTATGGCCTGTGGCA
 CAGCGAGGAGGCTCCCTGGATGCCACCAAGCAAGGACTCTGACGGCAACTTGGACCAGTGAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG209263 representing NM_003045
 Red=Cloning site Green=Tags(s)

MGCKVLLNIGQQMLRRKVVDCSREETRLSRCLNTFDLVALGVGSTLGAGVYVLAGAVARENAGPAIVISF
 LIAALASVLAGLCYGEFGARVPKTSAYLYSYVTVGELWAFITGWNLILSYIIGTSSVARAWSATFDELI
 GRPIGEFSRTHMTLNAPGVLAENPDIFAVIIILITGLLTLGVKESAMVNKIFTCINVLVLFIMVSGFV
 KGSVKNWQLTEEDFGNTSGRLCLNNDTKEGKPGVGGFMPFGFSGVLSGAATCFYAFVGFDCIATTGEEVK
 NPQKAIPVGIASLLICFIAYFVSAALTLMPYFCLDNNSPLPDAFKHVGWEGAKYAVAVGSLCALASAS
 LLGSMFMPRVIYAMAEDGLLKFFLANVNDRTKPIIATLASGAVAAVMAFLFDLKDLDLMSIGTLLAY
 SLVAACVLVLRYPQEPNLVYQMASTSDLPADQNELASTNDSQLGFLPEAEMFSLKTIILSPKNMEPSK
 ISGLIVNISTSLI AVLIIITFCIVTVLGREALTKGALWAVFLLAGSALLCAVVTGVIWRQPESKTKLSFKV
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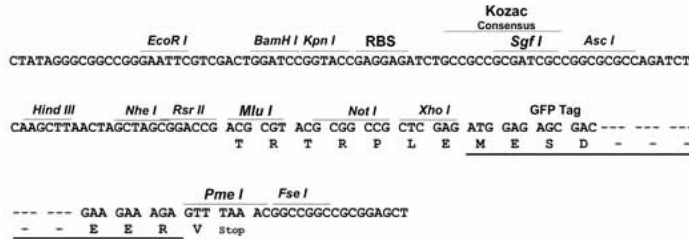
TRTRPLE - GFP Tag - V

Restriction Sites:

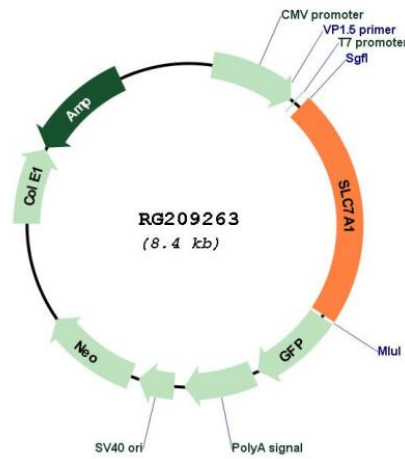
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_003045
 ORF Size: 1887 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_003045.4
RefSeq Size:	7248 bp
RefSeq ORF:	1890 bp
Locus ID:	6541
UniProt ID:	P30825
Cytogenetics:	13q12.3
Domains:	aa_permeases
Protein Families:	Druggable Genome, Transmembrane
Gene Summary:	High-affinity, low capacity permease involved in the transport of the cationic amino acids (arginine, lysine and ornithine) in non-hepatic tissues.[UniProtKB/Swiss-Prot Function]