

Product datasheet for SC118229

CAT1 (SLC7A1) (NM_003045) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CAT1 (SLC7A1) (NM_003045) Human Untagged Clone
Tag:	Tag Free
Symbol:	CAT1
Synonyms:	ATRC1; CAT-1; ERR; HCAT1; REC1L
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_003045 edited
 GAATTCGGCACGAGGAGAAGGTGGTGAGGCTTCCCGTCATATTCCAGCTCTGAACAGCAA
 CTGTTGGGTGCAAAGTCTGCTCAACATTGGGCAGCAGATGCTGCGCGGAAGGTGGTGA
 CTGTAGCCGGGAGGAGACGCGGCTGTCTGCTGCCTGAACACTTTTGATCTGGTGGCCCT
 CGGGGTGGGCAGCACACTGGGTGCTGGTGTCTACGTCCTGGCTGGAGCTGTGGCCCGTGA
 GAATGCAGGCCCTGCCATTGTCATCTCCTTCTGATCGCTGCGCTGGCCTCAGTGTGGC
 TGGCCTGTGCTATGGCGAGTTTGGTGTCTCGGGTCCCAAGACGGGCTCAGCTTACCTCTA
 CAGCTATGTACCGTTGGAGAGCTCTGGGCCTTCATCACCGGCTGGAACCTAATCCTCTC
 CTACATCATCGGTACTTCAAGCGTAGCGAGGGCCTGGAGCGCCACCTTCGACGAGCTGAT
 AGGGAGACCCATCGGGAGTTCTCACGGACACACATGACTCTGAACGCCCCGGCGTGT
 GGCTGAAAACCCGACATATTCGCAGTGATCATAATTCTCATCTTGACAGGACTTTTAAC
 TCTTGGTGTGAAAGAGTCGGCCATGGTCAACAAAATATTCACCTTGATTAACGTCCTGGT
 CCTGGGCTTCATAATGGTGTGAGGATTTGTGAAAGGATCGGTTAAAAACTGGCAGCTCAC
 GGAGGAGGATTTTGGGAACACATCAGGCCGTCTCTGTTTGAACAATGACACAAAAGAAGG
 GAAGCCCGGTGTTGGTGGATTATGCCCTTCGGGTTCTCTGGTGTCTGTGCGGGGCAGC
 GACTTGCTTCTATGCCTTCGTGGGCTTTGACTGCATCGCCACCACAGGTGAAGAGGTGAA
 GAACCCACAGAAGGCCATCCCCGTGGGGATCGTGGCGTCCCTCTTGATCTGCTTCATCGC
 CTACTTTGGGGTGTGCGCTGCCCTCACGCTCATGATGCCCTACTCTGCCTGGACAATAA
 CAGCCCCCTGCCGACGCCTTTAAGCACGTGGGCTGGGAAGTGCCAAGTACGAGTGGC
 CGTGGGCTCCCTCTGCGCTCTTTCCGCCAGTCTTCTAGGTTCCATGTTTCCCATGCTCG
 GGTATCTATGCCATGGCTGAGGATGGACTGCTATTTAAATTCCTAGCCAACGTCAATGA
 TAGGACAAAAACCAATAATCGCCACATTAGCCTCGGGTCCCGTTGCTGCTGTGATGGC
 CTTCTCTTTGACCTGAAGGACTTGGTGGACCTCATGTCCATTGGCACTCTCCTGGCTTA
 CTCGTTGGTGGCTGCCTGTGTGTTGGTCTTACGGTACCAGCCAGAGCAGCCTAACCTGGT
 ATACCAGATGGCCAGTACTTCCGACGAGTTAGATCCAGCAGACAAAATGAATTGGCAAG
 CACCAATGATCCAGCTGGGGTTTTTACCAGAGGCAGAGATGTTCTCTTTGAAAACCAT
 ACTCTACCCAAAAACATGGAGCCTTCCAAAATCTCTGGGCTAATTGTGAACATTTCAAC



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CAGCCTTATAGCTGTTCTCATCATCACCTTCTGCATTGTGACCGTGCTTGAAGGGAGGC
TCTCACAAAGGGGCGCTGTGGGCAGTCTTTCTGCTCGCAGGGTCTGCCCTCCTCTGTGC
CGTGGTCACGGGCGTCATCTGGAGGCAGCCGAGAGCAAGACCAAGCTCTCATTTAAGGT
TCCCTTCTGCCAGTGTCCCATCCTGAGCATCTTCGTGAACGTCTATCTCATGATGCA
GCTGGACCAGGGCACCTGGGTCGGTTCGCTGTGTGGATGCTGATAGGCTTCATCATCTA
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TCCTGACGGCAACTTGGACCAGTGCAAGTGACGCACAGCCCGCCCCCGGAGGTGGCAG
CAGCCCCGAGGGACGCCCCAGAGGACCGGGAGGCACCCACCCCTCCCCACCAAGTGAAC
AGAAACCACCTGCGTCCACACCCTCACTGCAGCCAAAGGTGCAATTACTTGACCTGCAGC
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CCTGGCCGGGGCCACTAGGCTGCGGCTGGCCACTGTGTCTCCTCACTTCTCTGAACAAAG
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CCTTCTCTCCTTATCTTGGGAACCAGGCCTTCTCCCGGGACTGTTCTGGGATTGAAAT
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TAAGAGCCAGAGCTCCGATTTCCAAAGAGTGATATTGACATTTATGGAGATNGGTGTTG
TAACATATTTTGATAAACTAATACTTATTTTGTGGGGTTTTGGTTGTCTCTTGTCTTAG
GACCTGGTAGTTATTTGCTTGATTTTTTTTTTCCGTTATTTTCTACATAGGCAAAGAGAAT
TCGAGGGATAGACAGTCTCCAAGAAAAGTGAAGTGGTGGGAGAGAATTGCTTTTTTCTTT
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GACTATTTAGAGTTGACATTTGACATTTTAAATGGGCGCCATGGCTCATTTTGTAGATTGA
GAAGGTGCGTCTCCCCTGCTCCAAGTCTCATCATGACAGCGTGCTGACAGCTGGGAGTCT
GTGGCCTTCTCACGCAGAGGCCTTAAAGCTGGACACAGAAGCACGCCTAGGCTGGGCGAG
GGATGGGACCCATGCCCCCTCCTTAGAGGACGGGCTTCTGGTTAGGAAAGGACACGTGG
GGGTGCCCTTGCAATAGTTCACTGGTCACCGTGTCTTTATGAGTAGTGTTTTTGTGCAC
TTGCCAGGGTTTTCTCTGTGTGCGAGGGGAGTGATTTAAGCAATGGTGTCTGGAGTA
AGCCTTACAATTTAATAGACTTTTTCTTATCATATCCCTCATTTCTTTCCCTGAAATAA
AAATACACACAAGCAAAAAAAAAAAAAAAAAAAAAACTCGAC

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_003045 unedited
CCCCATTTCCCCCGTTGACGCAATGGGCGTAGGCGTGTACGGTGGGAGGTCTATATA
AGCAGAGCTCATTTAGGTGACACTATAGAATAACAAGCTACTTGTCTTTTTGCAGCGCC
GCGAATTCGGCACGAGGAGAAGGTGGTGAAGCTTCCCGTCATATCCAGCTCTGAACAGC
AACATGGGGTGCAAAGTCTGTCAACATTGGGCAGCAGATGCTGCGGCGGAAGGTGGT
GACTGTAGCCGGGAGGAGACGCGGCTGTCTCGCTGCCTGAACACTTTTGATCTGGTGGCC
CTCGGGGTGGGCAGCACACTGGGTGCTGGTGTCTACGTCTGGCTGGAGCTGTGGCCGT
GAGAATGCAGGCCCTGCCATTGTCATCTCCTTCTGATCGCTGCGCTGGCCTCAGTGCTG
GCTGGCCTGTGCTATGGCGAGTTTGGTGTCTGGTCCCCAAGACGGGCTCAGTTACCTC
TACAGCTATGTCACCGTTGGAGAGCTCTGGGCCTTCATCACCGGCTGGAACCTTAATCCTC
TCCTACATCATCGGTACTTCAAGCGTAGCGAGGGCCTGGAGCGCCACCTTCGACGAGCTG
ATAGGGAGACCCATCGGGGAGTTCTCACGGACACACATGACTCTGAACGCCCCCGGCGTG
CTGGCTGAAAACCCCGACATATTCGACAGTGATCATAATTCTCATCTTGACAGGACTTTTA
ACTCTTGGTGTGAAAGAGTCCGGCATGGTCAACAAAATTTCACTTGATTAACGTTCTCT
GGTCTGGGCTTCATAAAGGTGTGAGGATTTGTGAAAGGATCGGTTAACAACCTGGCAGCT
CACGGAGGAGGATTTGGAACACATTCAGCCGTCTCTGTTGAACATGACACAAAGAGGT
AGCC

3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_003045 unedited NNGGGTTAATCTATGNACCGCGCCGATTCTANGATCGAGTTTTTTTTTTTTTTTTTTTTTTT CTTGTGTGATTTTTTATTTTCAGGGGAAAAAATGAGGGATATGATAAGAAAAAGTCTATT AAAATTGTAAGGCTTACTCCAGACACCATTGCTTAAATCACTCCCCTCGCACACAGAGAG AAAACCCCTGGCAAGTGCACAAAAACACTACTATAAAAGCACGGTGACCAGTGAAGTAT TATGCAAGGCACCCACGTGTCCTTTCCCTAACCCAGGAAGCCCGTCTCTAAGGAGGGGG CATGGTCCCATCCCTGCCAGCCTAGGGGTGCTTCTGTGTCCAGCTTTAAGGCCTCTGC GTGAGGAAGGCCACAGACTCCCAGCTGTGACGACGCTGTATGATGAGACTTGGAGCAGG GGAGACGCACCTTCTCAATCTACAAAATGAGCCATGGCGCCATTAAAATGTCAAATGTC AACTCTAAATAGTCTATTGGGTGCTGTCTTGCACGGAAATCTCAGCCAGAAAAGAAAAACT AGAGAAAAGAAAAAAGAAAAAGCAATTCTCTCCCACTTCACTTTTCTTGGAGAC TGTCTATCCCTCGAATTCTTTGCCTATGTAGAAAATAACGGAAAAAATAAAGTATGTTT ATAAGTACCAGGTCCTAAGACAAGAGACAACCAANACCCCAACAAAATAAGTTAGTATTT ATCAAAATATGTTACAACACCAATCTCCATAAATGTCAATATCACTCTTTGGGAATCGNA GCTCTGGGCTCTTATGATGCTCCCTCTGGAACATTCAAATGAGATCAGAATAAGCTCCCA NCAAGGTGAGCAGCTGATAACGAGGCCAGCCATGGNCATCCAACCGCCCTCCACGCC TGTTCAAAAATTCTTGCACA</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_003045
Insert Size:	4700 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_003045.3 , NP_003036.1
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]