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Product datasheet for SC118201

Solute carrier family 22 member 5 (SLC22A5) (NM_003060) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Solute carrier family 22 member 5 (SLC22A5) (NM_003060) Human Untagged Clone
Tag:	Tag Free
Symbol:	Solute carrier family 22 member 5
Synonyms:	CDSP; OCTN2
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene ORF within SC118201 sequence for NM_003060 edited (data generated by NextGen Sequencing)

ATGCGGGACTACGACGAGGTGACCGCCTTCCTGGGCGAGTGGGGGCCCTTCCAGCGCCTC
ATCTTCTTCCTGCTCAGCGCCAGCATCATCCCCAATGGCTTCACCGGCCTGTCCTCCGTG
TTCCTGATAGCGACCCCGGAGCACCGCTGCCGGGTGCCGGACGCCGCGAACCTGAGCAGC
GCCTGGCGCAACCACACTGTCCCACTGCGGCTGCGGGACGGCCGCGAGGTGCCCCACAGC
TGCCGCCGCTACCGGCTCGCCACCATCGCCAACTTCTCGGCGCTCGGGCTGGAGCCGGGG
CGCGACGTGGACCTGGGGCAGCTGGAGCAGGAGAGCTGTCTGGATGGCTGGGAGTTCAGT
CAGGACGTCTACCTGTCCACCATTGTGACCGAGTGGAACCTGGTGTGTGAGGACGACTGG
AAGGCCCCACTCACAATCTCCTTGTTCTTCGTGGGTGTGCTGTTGGGCTCCTTCATTTCA
GGGCAGCTGTCAGACAGGTTTGGCCGGAAGAATGTGCTGTTCGTGACCATGGGCATGCAG
ACAGGCTTCAGCTTCCTGCAGATCTTCTCGAAGAATTTTGAGATGTTTGTCGTGCTGTTT
GTCCTTGTAGGCATGGGCCAGATCTCCAACTATGTGGCAGCATTTGTCCTGGGGACAGAA
ATTCTTGGCAAGTCAGTTCGTATAATATTCTCTACGTTAGGAGTGTGCATATTTTATGCA
TTTGGCTACATGGTGCTGCCACTGTTTGCTTACTTCATCCGAGACTGGCGGATGCTGCTG
GTGGCGCTGACGATGCCGGGGGTGCTGTGCGTGGCACTCTGGTGGTTCATCCCTGAGTCC
CCCCGATGGCTCATCTCTCAGGGACGATTTGAAGAGGCAGAGGTGATCATCCGCAAGGCT
GCCAAAGCCAATGGGATTGTTGTGCCTTCCACTATCTTTGACCCGAGTGAGTTACAAGAC
CTAAGTTCCAAGAAGCAGCAGTCCCACAACATTCTGGATCTGCTTCGAACCTGGAATATC
CGGATGGTCACCATCATGTCCATAATGCTGTGGATGACCATATCAGTGGGCTATTTTGGG
CTTTCGCTTGATACTCCTAACTTGCATGGGGACATCTTTGTGAACTGCTTCCTTTCAGCG
ATGGTTGAAGTCCCAGCATATGTGTTGGCCTGGCTGCTGCTGCAATATTTGCCCCGGCGC
TATTCCATGGCCACTGCCCTCTTCCTGGGTGGCAGTGTCCTTCTCTTCATGCAGCTGGTA
CCCCCAGACTTGTATTATTTGGCTACAGTCCTGGTGATGGTGGGCAAGTTTGGAGTCACG
GCTGCCTTTTCCATGGTCTACGTGTACACAGCCGAGCTGTATCCCACAGTGGTGAGAAAC
ATGGGTGTGGGAGTCAGCTCCACAGCATCCCGCCTGGGCAGCATCCTGTCTCCCTACTTC
GTTTACCTTGGTGCCTACGACCGCTTCCTGCCCTACATTCTCATGGGAAGTCTGACCATC
CTGACAGCCATCCTCACCTTGTTTCTCCCAGAGAGCTTCGGTACCCCACTCCCAGACACC
ATTGACCAGATGCTAAGAGTCAAAGGAATGAAACACAGAAAAACTCCAAGTCACACAAGG
ATGTTAAAAGATGGTCAAGAAAGGCCCACAATCCTTAAAAGCACAGCCTTCTAA

Clone variation with respect to NM_003060.3
285 t=>c;807 a=>g

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_003060 unedited
AAGTCAAATATTTGTATACGACTCACTATAGGGCGGCCGCGAATTCGCACGAGGCAGCCG
CGGCAGGACCAAGGCGGCGGTGTCAGCTCGCGAGCCTACCCTCCGCGGACGGTCTTGGGT
CGCCTGCTGCCTGGCTTGCCTGGTCGGCGGCGGGTGCCCCGCGCGCACGCGCAAAGCCCG
CCGCGTTCCCCGACCCCAGGCCGCGCTCTGTGGGCCTCTGAGGGCGGCATGCGGGACTAC
GACGAGGTGACCGCCTTCCTGGGCGAGTGGGGGCCCTTCCAGCGCCTCATCTTCTTCCTG
CTCAGCGCCAGCATCATCCCCAATGGCTTCACCGGCCTGTCCTCCGTGTTCCTGATAGCG
ACCCCGGAGCACCGCTGCCGGGTGCCGGACGCCGCGAACCTGAGCAGCGCCTGGCGCAAC
CACACTGTCCCACTGCGGCTGCGGGACGGCCGCGAGGTGCCCCACAGCTGCCGCCGCTAC
CGGCTCGCCACCATCGCCAACTTCTCGGCGCTCGGGCTGGAGCCGGGGCGCGACGTGGAC
CTGGGGCAGCTGGAGCAGGAGAGCTGTCTGGATGGCTGGGAGTTCAGTCAGGACGTCTAC
CTGTCCACCATTGTGACCGAGTGGAACCTGGTGTGTGAGGACGACTGGAAGGCCCCACTC
ACAATCTCCTTGTTCTTCGTGGGTGTGCTGTTGGGCTCCTTCATTTCAGGGCAGCTGTCA
GACAGGTTTGGCCGGAAGAATGTGCTGTTCGTGACCATGGGCATGCAGACAGGCTTCAGC
TTCCTGCAGATCTTCTCGAAGATTTTGAGATGTNTGTCGTGCTGTTTGTCCTTGTANGCA
TGGGCCAGATCTCAACTATGTGGCAGCATTTGTCCTGGGGACAGAAATTCTTGGNCAGTC
AGTTCGTATATATTCTCTACGTTAGAGTGTG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_003060 unedited
TACCGCGGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTATTTGATATTTAAAA
AATCATTTTACTTATTAAAACTTTCTCATTTCCCAAGGCACTTCAGTAGCTTTCACAAAA
ACATGTTTGTTCTTTTTTAACCAGGTGAGGCATATGCTTTAGGAGTACCATGGTAACATA
ATCAGCAAAGAGAAGACAATTACACTGAACACAAAATATCACCCAATAAAGTTACAGGAC
TAAAGTGAGCTACTCTGAAAGACTATGAACACAATTTAAATTTCTTTTTTGTAATATCCT
CCCATGACTAAGTATCAAGAAAGGAACACACACAATGACACTGTTTTTGGCACTTAAAGA
AGTGCTAGAGGCTAGGGCTGGTAAGGCCTTGCACCAGTGGCAGCTGCAGACAATTGCCAG
AGTGATTCTGTGTTTAAAAAAAAAAAAAAAAAGACCCAAACCACGAGGCTAAGGAACCAGC
CTTTCCCAAGTGCTTTCTGAAGGGCAAATAACAAGGAGAAAAGGATACACCCCCAAACAA
ATTAACCGTATAACAAAACCCACATTACAGCTTTGAGAGAAAAGACATCGTTGCTCATTT
CTTTCACCTGAAAATGTACCTTTAAACCATACATTAAAACGCTTATATGTGCCAGGAGGC
GTCCCCCCGGCCTGTGAAACCGACACCTGAACACACGATGGAAACATTAATTCTGAACCC
TTGGACCACCCACTCGCCTTTCTCTCAATGAAGACCACCTCTGTCTCATATAAGTTGCTG
TATGGTAGCGAGCAACTACGCCCCTCGTCCACGCCCGTGACCGAAGTACGTCCTTNCTAT
ATCCATTCGTATAGCATAGAGAGAGTACCGGTACTCAATACNCACACGCCGCGAATGATC
ACATCTCAACAACACTAACCATTATCGCACGACACCGCACATGCCATCAAATGTATGAAT
CCACCTACACATAATACACAG

Restriction Sites: NotI-NotI

ACCN: NM_003060

Insert Size: 3370 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:
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_003060.2, NP_003051.1

RefSeq Size: 3252 bp

RefSeq ORF: 1674 bp

Locus ID: 6584

UniProt ID: O76082

Cytogenetics: 5q31.1

Domains: sugar_tr

Protein Families: Transmembrane

Gene Summary: Polyspecific organic cation transporters in the liver, kidney, intestine, and other organs are critical for elimination of many endogenous small organic cations as well as a wide array of drugs and environmental toxins. The encoded protein is a plasma integral membrane protein which functions both as an organic cation transporter and as a sodium-dependent high affinity carnitine transporter. The encoded protein is involved in the active cellular uptake of carnitine. Mutations in this gene are the cause of systemic primary carnitine deficiency (CDSP), an autosomal recessive disorder manifested early in life by hypoketotic hypoglycemia and acute metabolic decompensation, and later in life by skeletal myopathy or cardiomyopathy. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Apr 2015]
Transcript Variant: This variant (2) lacks an alternate in-frame exon in the 5' coding region, compared to variant 1, resulting in an isoform (b) that is shorter than isoform a.