

Product datasheet for **RC204136**

xCT (SLC7A11) (NM_014331) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	xCT (SLC7A11) (NM_014331) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SLC7A11
Synonyms:	CCBR1; xCT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC204136 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTCAGAAAGCCTGTTGTGTCCACCATCTCCAAAGGAGGTTACCTGCAGGAAATGTTAACGGGAGGC
 TGCCCTTCCTGGGCAACAAGGAGCCACCTGGGCAGGAGAAAGTGCAGCTGAAGAGGAAAGTCACTTTACT
 GAGGGGAGTCTCCATTATCATTGGCACCATCATTGGAGCAGGAATCTTCATCTCTCCTAAGGGCGTGCTC
 CAGAACACGGGCAGCGTGGGCATGTCTCTGACCATCTGGACGGTGTGGGGTCTGTCACTATTTGGAG
 CTTTGTCTTATGCTGAATTGGGAACAATAAAGAAATCTGGAGGTCATTACACATATATTTTGGAAAGT
 CTTTGGTCCATTACCAGCTTTTGTACGAGTCTGGGTGGAACCTCCTATAATACGCCCTGCAGCTACTGCT
 GTGATATCCCTGGCATTGGACGCTACATTCTGGAACATTTTTTATTCAATGTGAAATCCCTGAACCTG
 CGATCAAGCTCATTACAGCTGTGGGCATAACTGTAGTGATGGTCCATAAATAGCATGAGTGCAGCTGGAG
 CGCCCGGATCCAGATTTTCTAACCTTTTGAAGCTCACAGCAATCTGATAATTATAGTCCCTGGAGTT
 ATGCAGCTAATTAAGGTCAAACGCAGAACTTTAAGACGCCCTTTTCAGGAAGAGATTCAAGTATTACGC
 GGTGCCACTGGCTTTTTATTATGGAATGTATGCATATGCTGGCTGGTTTTACCTCAACTTTGTTACTGA
 AGAAGTAGAAAACCTGAAAAACCATTCCCTTGCAATATGTATATCCATGGCCATTGTCAACATTGGC
 TATGTGCTGACAAATGTGGCCTACTTTACGACCATTAATGCTGAGGAGCTGCTGCTTTCAAATGCAGTGG
 CAGTGACCTTTTCTGAGCGGCTACTGGGAAATTTCTCATTAGCAGTTCGGATCTTTGTTGCCCTCTCCTG
 CTTTGGCTCCATGAACGGTGGTGTGTTGTCTCCAGGTTATCTATGTTGCTCTCGAGAGGGTCCAC
 CTTCCAGAAATCCTCTCCATGATTATGCTCCGCAAGCACACTCCTACCAGCTGTTATTGTTTCCGAGG
 CTTTGACAAATGATAATGCTCTTCTCTGGAGACCTCGACAGTCTTTTGAATTTCTCAGTTTTGCCAGGTG
 GCTTTTTATTGGCTGGCAGTTGCTGGGCTGATTATCTTCGATACAAATGCCAGATATGCATCGTCTCT
 TTCAAGGTGCCACTGTTATCCAGCTTTGTTTTCTTCACATGCCTCTTCATGTTGCCCTTTCCCTCT
 ATTCGGACCCATTTAGTACAGGGATTGGCTTCGTCACTCTGACTGGAGTCCCTGCGTATTATCTCTT
 TATTATATGGGACAAGAAACCCAGGTGGTTAGAATAATGTCAGAGAAAAAACCAGAACATTACAATA
 ATACTGGAAGTTGTACCAGAAGAAGATAAGTTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC204136 protein sequence
 Red=Cloning site Green=Tags(s)

MVRKPVVSTISKGGYLQGNVNGRPLSLGNKEPPGQEKVQLKRKVTLRLGVSIIIGTIIIGAGIFISPKGVL
 QNTGSVMSLTIWTVCGVLSLFGALSYAELGTTIKKSGGHYTYILEVFGPLPAFVRVWVELLIIRPAATA
 VISLAFGRYILEPFFIQCEIPELAIKLITAVGITVVMVLNSMSVSWASARIQIFLTFCKLTAILIIVPGV
 MQLIKGQTQNFKDAFSGRDSSITRLPLAFYGYMYAYAGWFYLNFTVEEVENPEKTIPLAICISMAIVTIG
 YVLTNAVYFTTINAEELLSNAVAVTFSERLLGNFSLAVPIFVALSCFGSMNGGVFAVSRLFVVASREGH
 LPEILSMIHVRKHTPLPAVIVLHPLTMIMLFSGDLDLLNFLSFARWLFIGLAVAGLIYLRKCPDMHRP
 FKVPLFIPALFSFTCLFMVALSLYSDPFSTGIGFVITLTGVPAYYLFIIWDDKPRWFRIMSEKITRTLQI
 ILEVVPEDKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6199_e09.zip

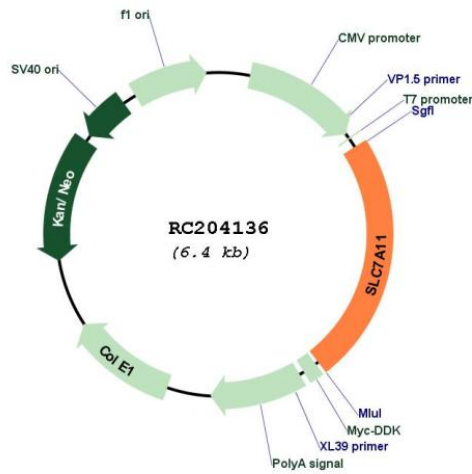
Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



Plasmid Map:



ACCN:

NM_014331

ORF Size:	1503 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_014331.3 , NP_055146.1
RefSeq Size:	9648 bp
RefSeq ORF:	1506 bp
Locus ID:	23657
UniProt ID:	Q9UPY5
Cytogenetics:	4q28.3
Domains:	aa_permeases
Protein Families:	Druggable Genome, Transmembrane
MW:	55.4 kDa
Gene Summary:	This gene encodes a member of a heteromeric, sodium-independent, anionic amino acid transport system that is highly specific for cysteine and glutamate. In this system, designated Xc(-), the anionic form of cysteine is transported in exchange for glutamate. This protein has been identified as the predominant mediator of Kaposi sarcoma-associated herpesvirus fusion and entry permissiveness into cells. Also, increased expression of this gene in primary gliomas (compared to normal brain tissue) was associated with increased glutamate secretion via the XCT channels, resulting in neuronal cell death. [provided by RefSeq, Sep 2011]