

## Product datasheet for **RG204136**

### **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:	TurboGFP
Symbol:	xCT
Synonyms:	CCBR1; xCT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG204136 representing NM\_014331  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTCAGAAAGCCTGTTGTGTCCACCATCTCCAAAGGAGGTTACCTGCAGGAAATGTTAACGGGAGGC  
 TGCCCTTCCTGGGCAACAAGGAGCCACCTGGGCAGGAGAAAGTGCAGCTGAAGAGGAAAGTCACTTTACT  
 GAGGGGAGTCTCCATTATCATTGGCACCATCATTGGAGCAGGAATCTTCATCTCTCCTAAGGGCGTGCTC  
 CAGAACACGGGCAGCGTGGGCATGTCTCTGACCATCTGGACGGTGTGGGGTCTGTCACTATTTGGAG  
 CTTTGTCTTATGCTGAATTGGGAACAATAAAGAAATCTGGAGGTCATTACACATATATTTTGGAAAGT  
 CTTTGGTCCATTACCAGCTTTTGTACGAGTCTGGGTGGAACCTCCTATAATACGCCCTGCAGCTACTGCT  
 GTGATATCCCTGGCATTGGACGCTACATTCTGGAACATTTTTTATTCAATGTGAAATCCCTGAACCTG  
 CGATCAAGCTCATTACAGCTGTGGGCATAACTGTAGTGATGGTCCATAAATAGCATGAGTGCAGCTGGAG  
 CGCCCGGATCCAGATTTTCTAACCTTTTGAAGCTCACAGCAATTCTGATAATTATAGTCCCTGGAGTT  
 ATGCAGCTAATTAAGGTCAAACGCAGAACTTTAAAGACGCCTTTTCAGGAAGAGATTCAAGTATTACGC  
 GGTGCCACTGGCTTTTTATTATGGAATGTATGCATATGCTGGCTGGTTTTACCTCAACTTTGTTACTGA  
 AGAAGTAGAAAACCTGAAAAACCATCCCTTGCAATATGTATATCCATGGCCATTGTCACCATTGGC  
 TATGTGCTGACAAATGTGGCCTACTTTACGACCATTAATGCTGAGGAGCTGCTGCTTTCAAATGCAGTGG  
 CAGTGACCTTTTCTGAGCGGCTACTGGGAAATTTCTCATTAGCAGTCCGATCTTTGTTGCCCTCTCCTG  
 CTTTGGCTCCATGAACGGTGGTGTGTTGTCTCCAGGTTATCTATGTTGCGTCTCGAGAGGGTCCAC  
 CTTCCAGAAATCCTCTCCATGATTATGCTCCGCAAGCACACTCCTACCAGCTGTTATTGTTTTGCACC  
 CTTTGACAATGATAATGCTCTTCTCTGGAGACCTCGACAGTCTTTGAATTTCTCAGTTTTGCCAGTGG  
 GCTTTTTATTGGGCTGGCAGTTGCTGGGCTGATTTATCTTCGATACAAATGCCAGATATGCATCGTCTC  
 TTCAAGGTGCCACTGTTATCCAGCTTTGTTTTCTTCACATGCCTCTTCATGTTGCCCTTTCCCTCT  
 ATTCGGACCCATTTAGTACAGGGATTGGCTTCGTCATCACTCTGACTGGAGTCCCTGCGTATTATCTCT  
 TATTATATGGGACAAGAAACCCAGGTGGTTTGAATAATGTCAGAGAAAAAACCAGAACATTACAAATA  
 ATACTGGAAGTTGTACCAGAAGAAGATAAGTTA

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG204136 representing NM\_014331  
 Red=Cloning site Green=Tags(s)

MVRKPVVSTISKGGYLQGNVNGRLPSLGNKEPPGQEKVQLKRKVTLLRGVSIIGTIIIGAGIFISPKGVL  
 QNTGSGVMSLTIWTVCGVLSLFGALSYAELGTTIKKSGGHYTYILEVFGPLPAFVRVWVELLIIRPAATA  
 VISLAFGRYILEPFFIQCEIPELAIKLIITAVGITVVMVLNSMSVWSARIQIFLTFCKLTAILIIIVPGV  
 MQLIKGQTQNFKDAFSGRDSITRLPLAFYYGMYAYAGWFYLNFNVTVEVENPEKTIPLAICISMAIVTIG  
 YVLTNVAYFTTINAEELLSNAVAVTFSERLLGNFSLAVPIFVALSCFGSMNGGVFAVSRLFYVASREGH  
 LPEILSMIHVRKHTPLPAVIVLHPLTMIMLFSGDLDLLNLSFARWLFGLAVAGLIYLRYPKCPDMHRP  
 FKVPLFIPALFSFTCLFMVALSLYSDPFSTGIGFVITLTGVPAYYLFIIWDDKPRWFRIMSEKITRTLQI  
 ILEVVPEDKL

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-Mlul

Cloning Scheme:



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:

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](#)

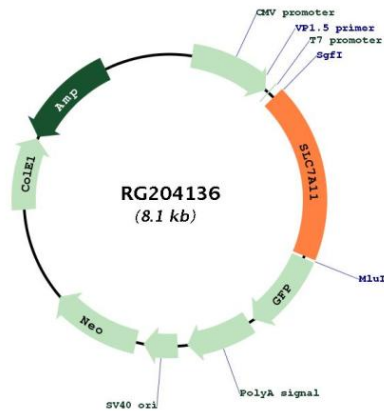
Cytogenetics: 4q28.3

**Domains:** aa\_permeases

**Protein Families:** Druggable Genome, Transmembrane

**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]

**Product images:**



Circular map for RG204136