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Product datasheet for RC209062

Syntaxin 1a (STX1A) (NM_004603) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Syntaxin 1a (STX1A) (NM_004603) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Syntaxin 1a
Synonyms:	HPC-1; P35-1; STX1; SYN1A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC209062 representing NM_004603.
Blue=ORF Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAAGGACCGAACCCAGGAGCTCCGCACGGCCAAGGACAGCGATGATGATGATGATGTCGCTGTCACC
GTGGACCGAGACCGCTTCATGGATGAGTTCTTTGAGCAGGTGGAGGAGATTCGAGGCTTCATTGACAAG
ATCGCAGAGAACGTGGAGGAGGTGAAGCGGAAGCACAGTGCCATCCTGGCATCCCCCAACCCCGATGAG
AAGACGAAGGAGGAGCTGGAAGAACTCATGTCCGACATAAAGAAGACAGCAAACAAAGTTCGTTCCAAG
TTAAAGAGCATCGAGCAGTCCATCGAGCAAGAGGAAGGCCTGAACCGCTCCTCCGCTGACCTGAGGATC
CGGAAGACACAGCACTCCACGCTGTCCAGAAAGTTTGTGGAGGTCATGTCGGAGTACAACGCCACGCAG
TCCGACTACCGCGAGCGCTGCAAAGGCCGCATCCAGAGGCAGCTGGAGATCACCGGCAGGACCACGACC
AGTGAGGAGCTGGAGGACATGCTGGAGAGTGGGAACCCCGCCATCTTTGCCTCTGGGATCATCATGGAC
TCCAGCATCTCGAAGCAGGCTCTGAGCGAGATTGAGACGCGGCACAGTGAGATCATCAAGCTGGAGAAC
AGCATCCGTGAGCTACACGACATGTTCATGGACATGGCCATGCTCGTGGAGAGCCAGGGAGAGATGATT
GACAGGATCGAGTACAATGTGGAACACGCGGTAGACTATGTGGAGAGGGCCGTGTCTGACACCAAGAAG
GCCGTCAAGTACCAGAGCAAGGCGCGCCGGAAGAAAATCATGATCATCATCTGCTGTGTGATCCTGGGC
ATCGTCATCGCCTCCACTGTTGGGGGCATCTTCGCC
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

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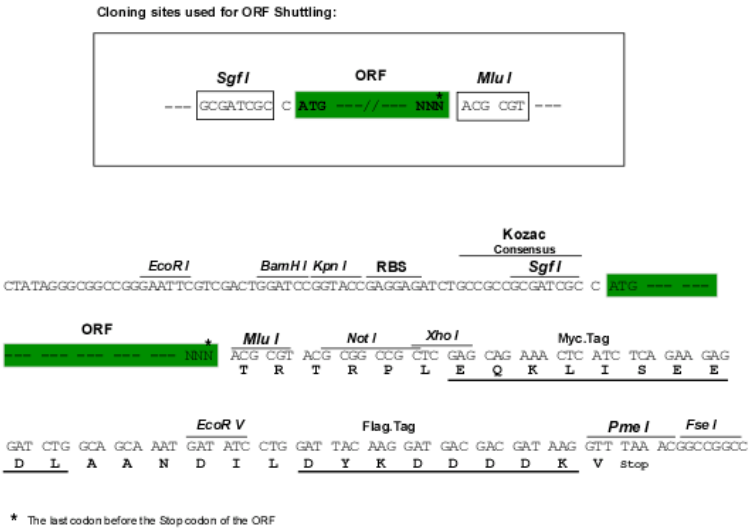
Protein Sequence:

>Peptide sequence encoded by RC209062
Blue=ORF Red=Cloning site Green=Tag(s)

MKDRTQELRTAKDSDDDDVAVTVDRDRFMDEFFEQVEEIRGFIDKIAENVEEVKRKHSAILASPNPDE
KTKEELEELMSDIKKTANKVRSKLKSIEQSIEQEEGLNRSSADLRIRKTQHSTLSRKFVEVMSEYNATQ
SDYRERCKGRIQRQLEITGRTTTSEELEDMLESGNPAIFASGIIMDSSISKQALSEIETRHSEIIKLEN
SIRELHDMFMDMAMLVESQGEMIDRIEYNVEHAVDYVERAVSDTKKAVKYQSKARRKKIMIIICCVILG
IVIASTVGGIFA
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004603

ORF Size: 864 bp

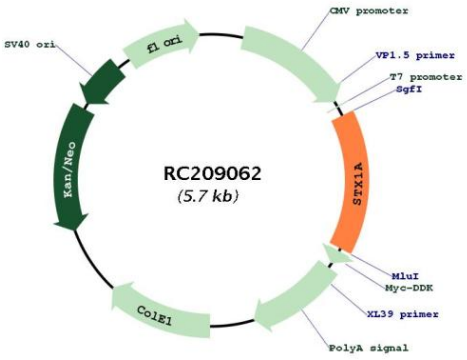
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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

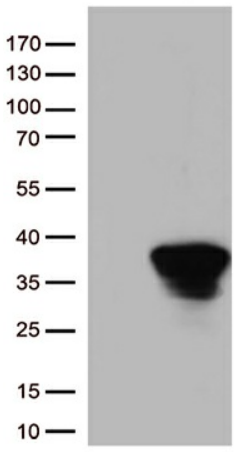
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_004603.4
RefSeq Size:	2138 bp
RefSeq ORF:	867 bp
Locus ID:	6804
UniProt ID:	Q16623
Cytogenetics:	7q11.23
Domains:	t_SNARE, SynN
Protein Families:	Druggable Genome, Secreted Protein, Transmembrane
Protein Pathways:	SNARE interactions in vesicular transport
MW:	33 kDa
Gene Summary:	This gene encodes a member of the syntaxin superfamily. Syntaxins are nervous system-specific proteins implicated in the docking of synaptic vesicles with the presynaptic plasma membrane. Syntaxins possess a single C-terminal transmembrane domain, a SNARE [Soluble NSF (N-ethylmaleimide-sensitive fusion protein)-Attachment protein REceptor] domain (known as H3), and an N-terminal regulatory domain (Habc). Syntaxins bind synaptotagmin in a calcium-dependent fashion and interact with voltage dependent calcium and potassium channels via the C-terminal H3 domain. This gene product is a key molecule in ion channel regulation and synaptic exocytosis. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Sep 2009]

Product images:



Circular map for RC209062



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY STX1A (Cat# RC209062, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-STX1A (Cat# [TA812826])(1:500).