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Product datasheet for RC213409

CTSA (NM_000308) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CTSA (NM_000308) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CTSA
Synonyms:	GLB2; GSL; NGBE; PPCA; PPGB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC213409 representing NM_000308
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACTTCCAGTCCCCGGGCGCCTCCTGGAGAGCAAGGACGCGGGGGAGCAGAGATGATCCGAGCCGCGC
CGCCGCCGCTGTTCCTGCTGCTGCTGCTGCTGCTGCTAGTGTCCTGGGCGTCCCGAGGCGAGGCAGCCCC
CGACCAGGACGAGATCCAGCGCCTCCCCGGGCTGGCCAAGCAGCCGTCTTTCCGCCAGTACTCCGGCTAC
CTCAAAGGCTCCGGCTCCAAGCACCTCCACTACTGGTTTGTGGAGTCCCAGAAGGATCCCGAGAACAGCC
CTGTGGTGCTTTGGCTCAATGGGGGTCCCGGCTGCAGCTCACTAGATGGGCTCCTCACAGAGCATGGCCC
CTTCCTGGTCCAGCCAGATGGTGTCACCCTGGAGTACAACCCCTATTCTTGGAATCTGATTGCCAATGTG
TTATACCTGGAGTCCCCAGCTGGGGTGGGCTTCTCCTACTCCGATGACAAGTTTTATGCAACTAATGACA
CTGAGGTCGCCCAGAGCAATTTTGAGGCCCTTCAAGATTTCTTCCGCCTCTTTCCGGAGTACAAGAACAA
CAAACTTTTCCTGACCGGGGAGAGCTATGCTGGCATCTACATCCCCACCCTGGCCGTGCTGGTCATGCAG
GATCCCAGCATGAACCTTCAGGGGCTGGCTGTGGGCAATGGACTCTCCTCCTATGAGCAGAATGACAACT
CCCTGGTCTACTTTGCCTACTACCATGGCCTTCTGGGGAACAGGCTTTGGTCTTCTCTCCAGACCCACTG
CTGCTCTCAAAACAAGTGTAACTTCTATGACAACAAAGACCTGGAATGCGTGACCAATCTTCAGGAAGTG
GCCCGCATCGTGGGCAACTCTGGCCTCAACATCTACAATCTCTATGCCCCGTGTGCTGGAGGGGTGCCCA
GCCATTTTAGGTATGAGAAGGACACTGTTGTGGTCCAGGATTTGGGCAACATCTTCACTCGCCTGCCACT
CAAGCGGATGTGGCATCAGGCACTGCTGCGCTCAGGGGATAAAGTGCGCATGGACCCCCCCTGCACCAAC
ACAACAGCTGCTTCCACCTACCTCAACAACCCGTACGTGCGGAAGGCCCTCAACATCCCGGAGCAGCTGC
CACAATGGGACATGTGCAACTTTCTGGTAAACTTACAGTACCGCCGTCTCTACCGAAGCATGAACTCCCA
GTATCTGAAGCTGCTTAGCTCACAGAAATACCAGATCCTATTATATAATGGAGATGTAGACATGGCCTGC
AATTTCATGGGGGATGAGTGGTTTGTGGATTCCCTCAACCAGAAGATGGAGGTGCAGCGCCGGCCCTGGT
TAGTGAAGTACGGGGACAGCGGGGAGCAGATTGCCGGCTTCGTGAAGGAGTTCTCCCACATCGCCTTTCT
CACGATCAAGGGCGCCGGCCACATGGTTCCCACCGACAAGCCCCTCGCTGCCTTCACCATGTTCTCCCGC
TTCCTGAACAAGCAGCCATAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC213409 representing NM_000308
Red=Cloning site Green=Tags(s)

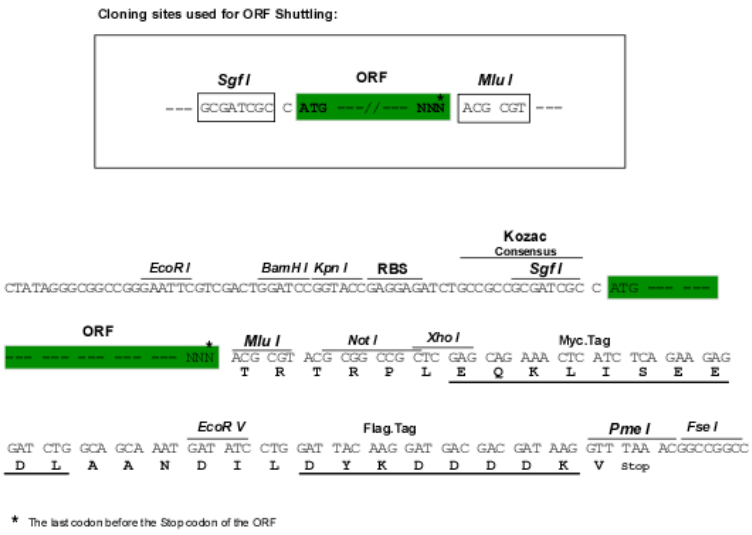
MTSSPRAPPGEQGRGGAEMIRAAPPPLFLLLLLLLLVSWASRGEAAPDQDEIQRLPGLAKQPSFRQYSGY
LKGSGSKHLHYWFVESQKDPENSPVVLWLNGGPGCSSLDGLLTEHGPFLVQPDGVTLEYNPYSWNLIANV
LYLESPAGVGFSYSDDKFYATNDTEVAQSNFEALQDFFRLFPEYKNNKLFLTGESYAGIYIPTLAVLVMQ
DPSMNLQGLAVGNGLSSYEQNDNSLVYFAYYHGLLGNRLWSSLQTHCCSQNKCNFYDNKDLECVTNLQEV
ARIVGNSGLNIYNLYAPCAGGVPSHFRYEKDTVVVQDLGNIFTRLPLKRMWHQALLRSGDKVRMDPPCTN
TTAASTYLNNPYVRKALNIPEQLPQWDMCNFLVNLQYRRLYRSMNSQYLKLLSSQKYQILLYNGDVDMAC
NFMGDEWFVDSLNQKMEVQRRPWLVKYGDSGEQIAGFVKEFSHIAFLTIKGAGHMVPTDKPLAAFTMFSR
FLNKQPY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3283_b01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000308

ORF Size: 1491 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.

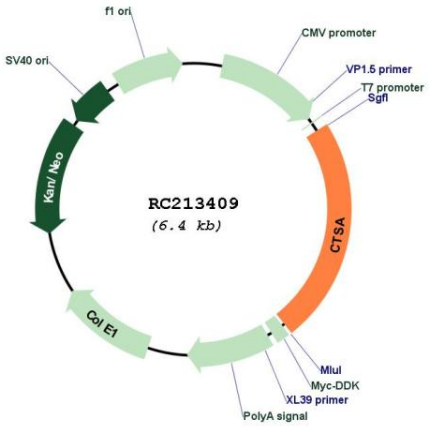
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

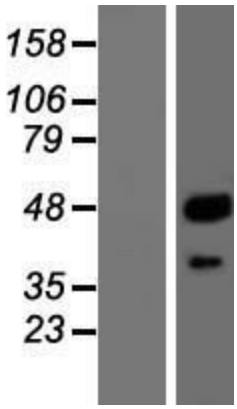
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000308.3, NP_000299.2
RefSeq Size:	2254 bp
RefSeq ORF:	1443 bp
Locus ID:	5476
UniProt ID:	P10619
Cytogenetics:	20q13.12
Domains:	serine_carbpept
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Renin-angiotensin system
MW:	56.12 kDa
Gene Summary:	This gene encodes a member of the peptidase S10 family of serine carboxypeptidases. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate two chains that comprise the heterodimeric active enzyme. This enzyme possesses deamidase, esterase and carboxypeptidase activities and acts as a scaffold in the lysosomal multienzyme complex. Mutations in this gene are associated with galactosialidosis. [provided by RefSeq, Nov 2015]

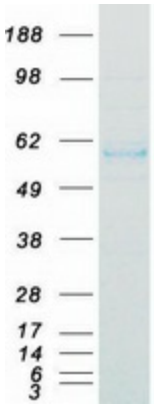
Product images:



Circular map for RC213409



Western blot validation of overexpression lysate (Cat# [LY424807]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213409 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CTSA protein (Cat# [TP313409]). The protein was produced from HEK293T cells transfected with CTSA cDNA clone (Cat# RC213409) using MegaTran 2.0 (Cat# [TT210002]).