

Product datasheet for RC211659

CTAG2 (NM_172377) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: CTAG2 (NM_172377) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: CTAG2
Synonyms: CAMEL; CT2; CT6.2; CT6.2a; CT6.2b; ESO2; LAGE-1; LAGE2B
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC211659 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGGATCGCC

ATGCAGGCCAAGGCCGGGGCACAGGGGTTTCGACGGGCGATGCTGATGGCCCAGGAGGCCCTGGCATTCTGATGGCCCAGGGGCAATGCTGGCGGCCAGGAGAGCGGGTGCCACGGGCGGCAGAGGTCCCCGGGCGCAGGGGCAGCAAGGGCCTCGGGGCCAGAGGAGGCGCCCCGCGGGTCCGCATGGCGGTGCCGTTCTGCGCAGGATGGAAGGTGCCCTCGGGGCCAGGAGGCCGGACAGCCGCTGCTTGAGTTGCACATCACGATGCTTTCTCGTCCCATGGAAGCGGAGCTGGTCCGAGGATCTGTCCCGGGATGCCGCACCGTCCC
 CCGACCAGGGGGCTTCTGAAGGACTTCACCGTGTCCGGCAACCTACTGTTTATCCGACTGACTGCTGCA
 GACCACCGCAACTGCAGCTCTCCATCAGCTCCTGTCTCCAGCAGCTTCCCTGTTGATGTGGATCACGC
 AGTGCTTCTGCCGTGTTTTGGCTCAGGCTCCCTCAGGGCAGAGGCGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC211659 protein sequence
 Red=Cloning site Green=Tags(s)

MQAEGRGTGGSTGDADGPGGPGIPDGPGGNAGGPGEAGATGGRGPRGAGAARASGPRGGAPRPHGGAAS
 AQDGRPCGARRPDSRLLLEHITMPFSSPMEAELVRRILSRDAAPLPRGAVLKDFTVSGNLLFIRLTA
 DHRQLQLSISCLQQLSLLMWITQCFLPVFLAQAPSGQRR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

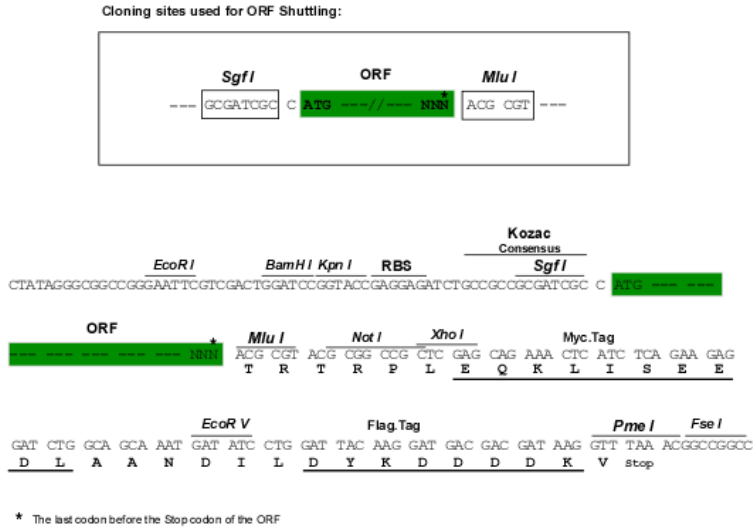
Chromatograms: https://cdn.origene.com/chromatograms/mk6444_d01.zip



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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_172377

ORF Size: 540 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_172377.4](#)

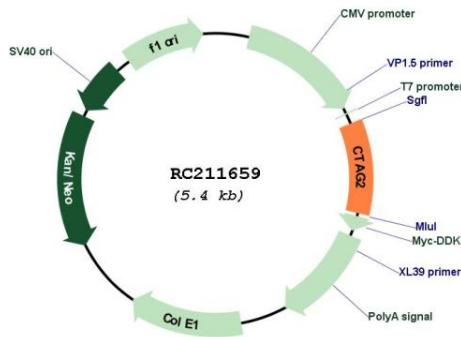
RefSeq Size: 773 bp

RefSeq ORF: 543 bp

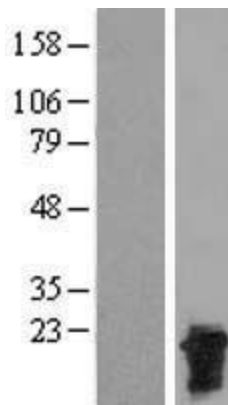
Locus ID: 30848
UniProt ID: [O75638](#)
Cytogenetics: Xq28
MW: 18.3 kDa

Gene Summary: This gene encodes an autoimmunogenic tumor antigen that belongs to the ESO/LAGE family of cancer-testis antigens. This protein is expressed in a wide array of cancers including melanoma, breast cancer, bladder cancer and prostate cancer. This protein is also expressed in normal testis tissue. An alternative open reading frame product of this gene has been described in PMID:10399963. This alternate protein, termed CAMEL, is a tumor antigen that is recognized by melanoma-specific cytotoxic T-lymphocytes. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Sep 2013]

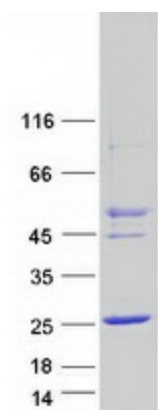
Product images:



Circular map for RC211659



Western blot validation of overexpression lysate (Cat# [LY406703]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211659 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CTAG2 protein (Cat# [TP311659]). The protein was produced from HEK293T cells transfected with CTAG2 cDNA clone (Cat# RC211659) using MegaTran 2.0 (Cat# [TT210002]).