

Product datasheet for **RC210002**

S100A12 (NM_005621) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: S100A12 (NM_005621) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: S100A12
Synonyms: CAAF1; CAGC; CGRP; ENRAGE; MRP-6; MRP6; p6
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC210002 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACAAAACTTGAAGAGCATCTGGAGGAATTGTCAATATCTTCCACCAATACTCAGTTCGGAAGGGGC
ATTTT**GACACC**CTCTCTAAGGGTGAGCTGAAGCAGCTGCTTACAAAGGAGCTTGCAAACACCATCAAGAA
TATCAAAGATAAAGCTGTCATTGATGAAATATTCCAAGGCCTGGATGCTAATCAAGATGAACAGGTCGAC
TTTCAAGAATTCATATCCCTGGTAGCCATTGCGCTGAAGGCTGCCATTACCACCCACAAAGAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC210002 protein sequence
Red=Cloning site Green=Tags(s)

MTKLEEHLEGI VNI F HQYSVRKGFDTLSKGELKQLLTKELANTIKNIKDKAVIDEIFQGLDANQDEQVD
FQEFISLVAIALKAAHYHTHKE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6070_e07.zip

Restriction Sites: Sgfl-MluI



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Cloning Scheme:


ACCN: NM_005621

ORF Size: 276 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.

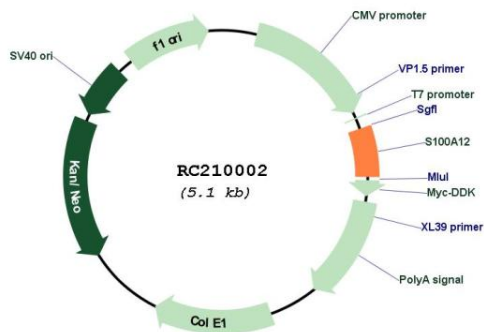
RefSeq: [NM_005621.2](#)

RefSeq Size: 466 bp

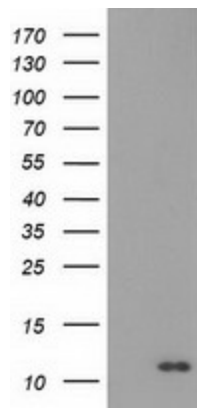
RefSeq ORF: 279 bp
Locus ID: 6283
UniProt ID: [P80511](#)
Cytogenetics: 1q21.3
Domains: S_100, EFh
MW: 10.6 kDa

Gene Summary: The protein encoded by this gene is a member of the S100 family of proteins containing 2 EF-hand calcium-binding motifs. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. S100 genes include at least 13 members which are located as a cluster on chromosome 1q21. This protein is proposed to be involved in specific calcium-dependent signal transduction pathways and its regulatory effect on cytoskeletal components may modulate various neutrophil activities. The protein includes an antimicrobial peptide which has antibacterial activity. [provided by RefSeq, Nov 2014]

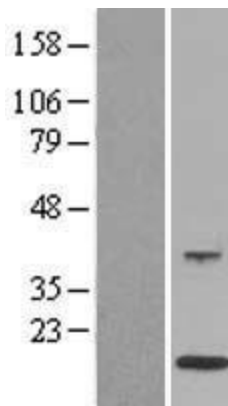
Product images:



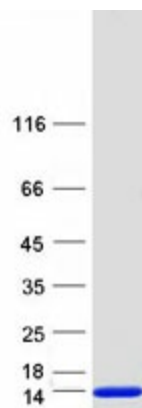
Circular map for RC210002



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY S100A12 (Cat# RC210002, 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-S100A12 (Cat# [TA502495]). Positive lysates [LY401723] (100ug) and [LC401723] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401723]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210002 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified S100A12 protein (Cat# [TP310002]). The protein was produced from HEK293T cells transfected with S100A12 cDNA clone (Cat# RC210002) using MegaTran 2.0 (Cat# [TT210002]).