

## Product datasheet for **RC210891**

### **S100A5 (NM\_002962) Human Tagged ORF Clone**

#### Product data:

Product Type: Expression Plasmids

Tag: Myc-DDK

Symbol: S100A5

Synonyms: S100D

Mammalian Cell Selection: Neomycin

Vector: pCMV6-Entry (PS100001)

E. coli Selection: Kanamycin (25 ug/mL)

ORF Nucleotide Sequence: >RC210891 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCCTGCTGCTTGGATTCTCTGGGCTCACTCCACAGTGAGCTGCACACTGTGATGGAGACTCCTCTGG  
 AGAAGGCCCTGACCACTATGGTGACCACGTTTCACAAATATTCGGGGAGAGAGGGTAGCAAACCTGACCCCT  
 GAGTAGGAAGGAAGCAAGGAGCTGATCAAGAAAGAGCTGTGTCTTGGGGAGATGAAGGAGAGCAGCATC  
 GATGACTTGATGAAGAGCCTGGACAAGAACAGCGACCAGGAGATCGACTTCAAGGAGTACTCGGTGTTCC  
 TGACCATGCTGTGCATGGCCTACAACGACTTCTTCTAGAGGACAACAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC210891 protein sequence  
 Red=Cloning site Green=Tags(s)

MPAAWILWAHSHSELHTVMETPLEKALTTMVTTFHKYSGREGSKLTLSRKELKELIKKELCLGEMKESSI  
 DDLMKSLDKNSDQEIDFKEYSVFLTMLCMAYNDFFLDNK

**TR**TRPLE**QKLISEEDLA**NDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6383\\_e12.zip](https://cdn.origene.com/chromatograms/mk6383_e12.zip)

Restriction Sites: SgfI-MluI



[View online »](#)

**Cloning Scheme:**


**ACCN:** NM\_002962

**ORF Size:** 330 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.

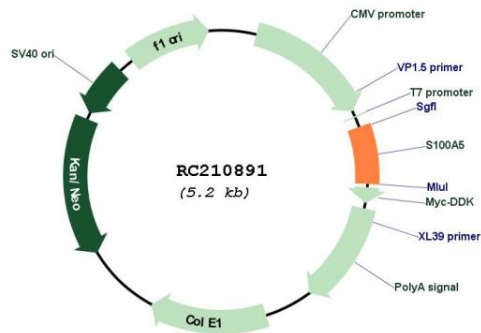
**RefSeq Size:** 710 bp

**RefSeq ORF:** 279 bp

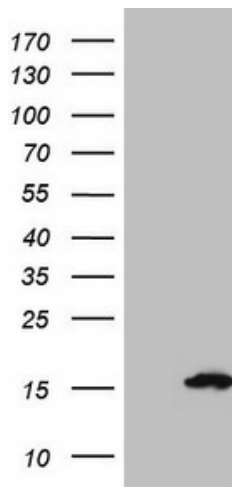
**Locus ID:** 6276  
**UniProt ID:** [P33763](#)  
**Cytogenetics:** 1q21.3  
**MW:** 12.8 kDa

**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 has a Ca<sup>2+</sup> affinity 20- to 100-fold higher than the other S100 proteins studied under identical conditions. This protein also binds Zn<sup>2+</sup> and Cu<sup>2+</sup>, and Cu<sup>2+</sup> strongly which impairs the binding of Ca<sup>2+</sup>. This protein is expressed in very restricted regions of the adult brain. [provided by RefSeq, Jul 2008]

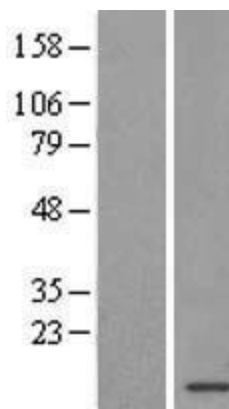
## Product images:



Circular map for RC210891



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY S100A5 (Cat# RC210891, 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-S100A5 (1:2000) (Cat# [TA809056]). Positive lysates [LY418992] (100ug) and [LC418992] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY418992]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210891 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified S100A5 protein (Cat# [TP310891]). The protein was produced from HEK293T cells transfected with S100A5 cDNA clone (Cat# RC210891) using MegaTran 2.0 (Cat# [TT210002]).