

## Product datasheet for MR225750

### S100a4 (NM\_011311) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** S100a4 (NM\_011311) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** S100a4  
**Synonyms:** 18A2; 42a; CapI; FSp1; metastasin; Mts1; PeL98; pk9a  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR225750 representing NM\_011311  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCAAGACCCTTGGAGGAGGCCCTGGATGTAATTGTGTCCACCTCCACAAATACTCAGGCAAAGAGG  
GTGACAAGTTCAAGCTGAACAAGACAGAGCTCAAGGAGCTACTGACCAGGGAGCTGCCTAGCTTCTGGG  
GAAAAGGACAGATGAAGCTGCATTCCAGAAGGTGATGAGCAACTGGACAGCAACAGGGACAATGAAGTT  
GACTTCCAGGAGTACTGTGTCTCCTGCTCCTGCATTGCCATGATGTCAATGAATCTTTGAGGGCTGCC  
CAGATAAGGAGCCCCGAAGAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR225750 representing NM\_011311  
 Red=Cloning site Green=Tags(s)  
 MARPLEEALDIVSTFHKYSGKEDKFKLNKTELKELLTRELPSFLGKRTDEAAFQKVMNSLDSNRDNEV  
DFQEYCVFLSCIAMMCNEFFEGCPDKEPRKK

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9032\\_f07.zip](https://cdn.origene.com/chromatograms/mm9032_f07.zip)

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_011311

**ORF Size:** 303 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.

**RefSeq:** [NM\\_011311.2](#), [NP\\_035441.1](#)

**RefSeq Size:** 513 bp

**RefSeq ORF:** 306 bp

**Locus ID:** 20198

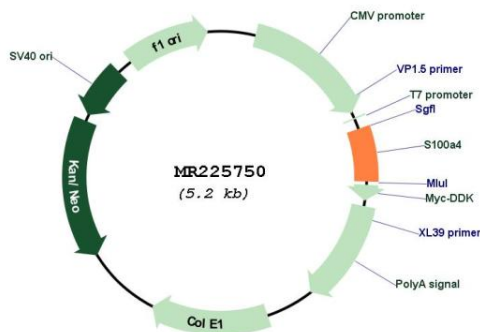
UniProt ID: [P07091](#)

Cytogenetics: 3 39.27 cM

MW: 12.2 kDa

**Gene Summary:** Calcium-binding protein that plays a role in various cellular processes including motility, angiogenesis, cell differentiation, apoptosis, and autophagy (PubMed:20519440). Increases cell motility and invasiveness by interacting with non-muscle myosin heavy chain (NMMHC) IIA/MYH9 (PubMed:8051043). Mechanistically, promotes filament depolymerization and increases the amount of soluble myosin-IIA, resulting in the formation of stable protrusions facilitating chemotaxis (PubMed:8051043). Modulates also the pro-apoptotic function of TP53 by binding to its C-terminal transactivation domain within the nucleus and reducing its protein levels (By similarity). Within the extracellular space, stimulates cytokine production including granulocyte colony-stimulating factor and CCL24 from T-lymphocytes (PubMed:20103644). In addition, stimulates T-lymphocyte chemotaxis by acting as a chemoattractant complex with PGLYRP1 that promotes lymphocyte migration via CCR5 and CXCR3 receptors (By similarity).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR225750