

# Anti-S100A4 Antibody

Mouse Monoclonal Antibody

Catalog # AH13493

## Product Information

---

|                          |                        |
|--------------------------|------------------------|
| <b>Application</b>       | WB, IHC-P, IF, FC      |
| <b>Primary Accession</b> | <a href="#">P26447</a> |
| <b>Other Accession</b>   | <a href="#">654444</a> |
| <b>Reactivity</b>        | Human, Mouse           |
| <b>Host</b>              | Mouse                  |
| <b>Clonality</b>         | Monoclonal             |
| <b>Isotype</b>           | Mouse / IgG1, kappa    |
| <b>Clone Names</b>       | S100A4/1482            |
| <b>Calculated MW</b>     | 11729                  |

## Additional Information

---

|                         |   |
|-------------------------|---|
| <b>Gene ID</b>          | 6275  |
| <b>Other Names</b>      | S100A4; S100 calcium-binding protein A4; Calvasculin; CAPL; Fibroblast specific protein 1 (FSP1); Leukemia multidrug resistance associated protein; Malignant transformation suppression 1 (MTS1); Metastasin; Placental calcium-binding protein  |
| <b>Application Note</b> | Flow Cytometry (0.5-1ug/million cells); Immunofluorescence (1-2ug/ml); ,Western Blotting (0.5-1ug/ml),Immunohistology (Formalin-fixed) (0.5-1.0ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes),Optimal dilution for a specific application should be determined. |
| <b>Format</b>           | 200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.  |
| <b>Storage</b>          | Store at 2 to 8°C.Antibody is stable for 24 months.   |
| <b>Precautions</b>      | Anti-S100A4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.  |

## Protein Information

---

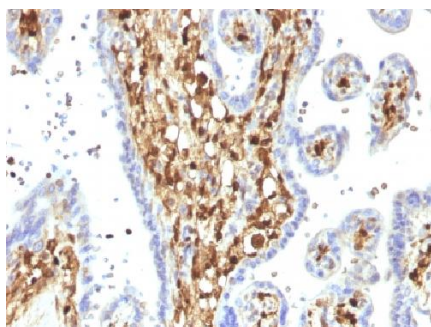
|                 |            |
|-----------------|------------|
| <b>Name</b>     | S100A4     |
| <b>Synonyms</b> | CAPL, MTS1 |

|                          |  |
|--------------------------|--|
| <b>Function</b>          | Calcium-binding protein that plays a role in various cellular processes including motility, angiogenesis, cell differentiation, apoptosis, and autophagy (PubMed: <a href="#">16707441</a> , PubMed: <a href="#">23752197</a> , PubMed: <a href="#">30713770</a> ). Increases cell motility and invasiveness by interacting with non-muscle myosin heavy chain (NMMHC) IIA/MYH9 (PubMed: <a href="#">16707441</a> ). Mechanistically, promotes filament depolymerization and increases the amount of soluble myosin-IIA, resulting in the formation of stable protrusions facilitating chemotaxis (By similarity). Also modulates the pro-apoptotic function of TP53 by binding to its C-terminal transactivation domain within the nucleus and reducing its protein levels (PubMed: <a href="#">23752197</a> ). Within the extracellular space, stimulates cytokine production including granulocyte colony- stimulating factor and CCL24 from T-lymphocytes (By similarity). In addition, stimulates T-lymphocyte chemotaxis by acting as a chemoattractant complex with PGLYRP1 that promotes lymphocyte migration via CCR5 and CXCR3 receptors (PubMed: <a href="#">26654597</a> , PubMed: <a href="#">30713770</a> ). |
| <b>Cellular Location</b> | Secreted. Nucleus Cytoplasm {ECO:0000250 UniProtKB:P07091}   |
| <b>Tissue Location</b>   | Ubiquitously expressed.  |

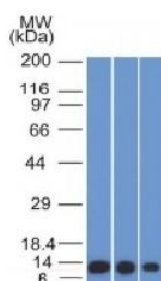
## Background

S100A4 belongs to the S100 super-family of proteins containing 2 EF-hand calcium-binding domains. S100 genes include at least 25 members, including S100A1-S100A18, trichohyalin, filaggrin, repetin, S100P, and S100Z. S100A4 exerts its function via direct interaction with a number of proteins including P53, P63, non-muscle myosin IIA,  $\alpha 6 \beta 4$  integrin, and liprin b1. S100A4 is overexpressed in highly metastatic cancers, which makes it useful as a marker of tumor progression.

## Images



Formalin--paraffin human Placenta stained with S100A4 Monoclonal Antibody (S100A4/1482).



Western Blot of HeLa, A549 and A375 Cell Lysate using S100A4 Monoclonal Antibody (S100A4/1482).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.