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S100A4 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11782a

Product Information

Application	WB, IHC-P, E
Primary Accession	P26447
Other Accession	P07091, P35466, NP_062427.1, NP_002952.1
Reactivity	Human, Mouse
Predicted	Bovine, Rat, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19138
Calculated MW	11729
Antigen Region	1-30

Additional Information

Gene ID	6275
Other Names	Protein S100-A4, Calvasculin, Metastasin, Placental calcium-binding protein, Protein Mts1, S100 calcium-binding protein A4, S100A4, CAPL, MTS1
Target/Specificity	This S100A4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human S100A4.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	S100A4 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	S100A4
Synonyms	CAPL, MTS1

Function	Calcium-binding protein that plays a role in various cellular processes including motility, angiogenesis, cell differentiation, apoptosis, and autophagy (PubMed:16707441, PubMed:23752197, PubMed:30713770). Increases cell motility and invasiveness by interacting with non-muscle myosin heavy chain (NMMHC) IIA/MYH9 (PubMed:16707441). 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:23752197). 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:26654597, PubMed:30713770).
Cellular Location	Secreted. Nucleus Cytoplasm {ECO:0000250|UniProtKB:P07091}
Tissue Location	Ubiquitously expressed.

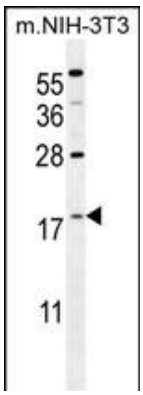
Background

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 may function in motility, invasion, and tubulin polymerization. Chromosomal rearrangements and altered expression of this gene have been implicated in tumor metastasis. Multiple alternatively spliced variants, encoding the same protein, have been identified.

References

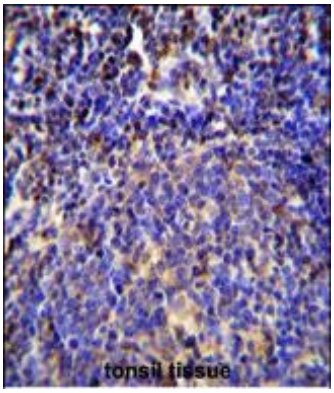
Ma, X., et al. Cancer Lett. 299(2):171-181(2010)
Miranda, K.J., et al. J. Biol. Chem. 285(41):31517-31524(2010)
van Dieck, J., et al. FEBS Lett. 584(15):3269-3274(2010)
Cunningham, M.F., et al. Am. J. Physiol. Gastrointest. Liver Physiol. 299 (2), G457-G466 (2010) :
Mencia, N., et al. BMC Cancer 10, 250 (2010) :

Images



S100A4 Antibody (N-term) (Cat. #AP11782a) western blot analysis in mouse NIH-3T3 cell line lysates (35ug/lane).This demonstrates the S100A4 antibody detected the S100A4 protein (arrow).

S100A4 Antibody (N-term) (Cat. #AP11782a)immunohistochemistry analysis in formalin fixed and paraffin embedded human tonsil tissue



followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of S100A4 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

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