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Product datasheet for TA337126

Calprotectin (S100A8) Mouse Monoclonal Antibody [Clone ID: 48M5F4]

Product data:

Product Type:	Primary Antibodies
Clone Name:	48M5F4
Applications:	WB
Recommended Dilution:	WB: 1:100-1:2000
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1, kappa
Clonality:	Monoclonal
Immunogen:	Within the range of amino acids 2-101 of human S100A8 were used as the immunogen for the antibody.
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein G purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	S100 calcium binding protein A8
Database Link:	NP_002955 Entrez Gene 6279 Human P05109

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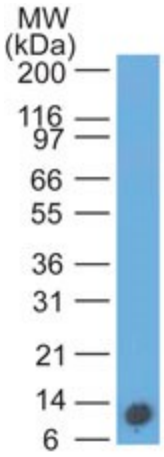
Background:

S100A8 is a low-molecular weight member of the S100 family of calcium-binding protein which promotes tumorigenesis. It promotes cell migration and invasion through p38 MAP dependent NF-kappaB activation leading to an increase of MMP2 and MMP12 in gastric cancer (Kwon CH et al., 2013). The phagocyte-specific Ca2+-binding S100A8 protein has been proposed as an essential regulator of the plasma membrane NADPH oxidase activity. It is abundantly expressed in the cytosol of neutrophils and is able to form Ca2+-dependent heterocomplexes, with heterotetramers being a probable prerequisite for its biological activities in myeloid cells. S100A8 and S100A9 have been proposed as essential regulators that exert their role through interactions with NADPH oxidase subunits (Brechard S et al., 2013).S100A8 and S100A9 are generally considered proinflammatory. Whereas hypohalous acids generated by activated phagocytes promote novel modifications in murine S100A8 but modifications to human S100A8 are undefined and there is no evidence that these proteins scavenge oxidants in human disease. Oxidized S100A8 was prominent in lungs from patients with asthma and significantly elevated in sputum compared to controls. Results have broad implications for conditions under which hypohalous acid oxidants are generated by activated phagocytes. Identification in human disease of the novel S100A8 Cys derivatives typical of those generated in vitro strongly supports the notion that S100A8 contributes to antioxidant defense during oxidative stress (Gomes LH et al., 2013).PsA (Psoriatic arthritis) is a chronic inflammatory arthropathy associated with psoriasis. Histologically, PsA is characterized by lining layer hyperplasia, diffuse infiltrate of B, T, macrophages and dendritic cells associated with neutrophils' proliferation and angiogenesis. Histological findings are associated with monocyte-derived cytokines expression, as Myeloid-related protein (S100A8/A9). They play an important role in intracellular functions and cytoskeleton-membrane interactions. S100A8/A9 has a role in the propagation and perpetuation of the inflammatory process in patients with psoriasis and PsA, because of an activated monocyte/macrophage system that involve, distal to the skin, the "enthesal-complex." It also acts as one of the principal mediators of innate immune response, and has been proposed as diagnostic marker for several inflammatory conditions including neonatal sepsis. (Chimenti MS et al. 2013, Terrin G et al., 2012).

Synonyms:

60B8AG; CAGA; CFAG; CGLA; CP-10; L1Ag; MA387; MIF; MRP8; NIF; P8

Product images:



Western Blot: S100A8/A9 Antibody (48M5F4) TA337126 - Analysis of S100A8 in recombinant protein using S1008A antibody at 0.5 ug/ml. Goat anti-mouse Ig HRP secondary antibody and PicoTect ECL substrate solution were used for this test.