S100-A12 ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	S100-A12, ELISA Kit
Full Product Name	Human Protein S100-A12 ELISA Kit
Product Gene Name	S100-A12 elisa kit
Product Synonym Names	Protein S100-A12; CGRP; Calcium-binding protein in amniotic fluid 1; CAAF1; Calgranulin-C; CAGC; Extracellular newly identified RAGE-binding protein; EN-RAGE; Neutrophil S100; S100A12
Species Reactivity	Human
Samples	Serum, plasma, tissue homogenates and other biological fluids.
Detection Range	15.6-1000 pg/mL
Sensitivity	Less than 7.8 pg/mL
Preparation and Storage	Store at 4 degree C
Molecular Weight	10,575 Da
OMIM	D49549 mRNA
3D Structure	ModBase 3D Structure for P80511
Assay Time	3-5h
Sample Volume	100T
Detection Wavelength	450 nm
Related Product Information for S100-A12 elisa kit	MBS9427433 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the S100-A12, ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing S100-A12. The ELISA analytical biochemical technique of the MBS9427433 kit is based on S100-A12 antibody-S100-A12 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect S100-A12 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, S100-A12. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of S100-A12 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for S100-A12. It may not necessarily be applicable to this product.

NCBI GI #	5032059
NCBI GeneID	6283
NCBI Accession #	NP_005612.1
UniProt Primary Accession #	P80511
UniProt Secondary Accession #	P83219; Q5SY66; Q7M4R1
UniProt Related Accession #	P80511

GenBank Nucleotide #	NM_005621.1
NCBI Official Full Name	protein S100-A12
NCBI Official Synonym Full Names	S100 calcium binding protein A12
NCBI Official Symbol	S100A12
NCBI Official Synonym Symbols	p6; CAGC; CGRP; MRP6; CAAF1; MRP-6; ENRAGE
UniProt Protein Name	Protein S100-A12
UniProt Synonym Protein Names	CGRP; Calcium-binding protein in amniotic fluid 1; CAAF1
Protein Family	Protein
UniProt Gene Name	S100A12
UniProt Synonym Gene Names	CAAF1; CAGC; EN-RAGE; MRP-6; p6
NCBI Protein Information	protein S100-A12
NCBI Summary for S100-A12	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 is proposed to be involved in specific calcium-dependent signal transduction pathways and its regulatory effect on cytoskeletal components may modulate various neutrophil activities. The protein includes an antimicrobial peptide which has antibacterial activity. [provided by RefSeq, Nov 2014]
UniProt Comments for S100-A12	S100A12: S100A12 is a calcium-, zinc- and copper-binding protein which plays a prominent role in the regulation of inflammatory processes and immune response. Its proinflammatory activity involves recruitment of leukocytes, promotion of cytokine and chemokine production, and regulation of leukocyte adhesion and migration. Acts as an alarmin or a danger associated molecular pattern (DAMP) molecule and stimulates innate immune cells via binding to receptor for advanced glycation endproducts (AGER). Binding to AGER activates the MAP-kinase and NF-kappa-B signaling pathways leading to production of proinflammatory cytokines and up-regulation of cell adhesion molecules ICAM1 and VCAM1. Acts as a monocyte and mast cell chemoattractant. Can stimulate mast cell degranulation and activation which generates chemokines, histamine and cytokines inducing further leukocyte recruitment to the sites of inflammation. Can inhibit the activity of matrix metalloproteinases; MMP2, MMP3 and MMP9 by chelating Zn(2+) from their active sites. Possesses filariacidal and filariastatic activity. Calcitermin possesses antifungal activity against C.albicans and is also active against E.coli and P.aeruginosa but not L.monocytogenes and S.aureus. Belongs to the S-101 family. Chromosomal Location of Human Ortholog: 1q21.3 Cellular Component: cytoplasm; cytoskeleton; cytosol; extracellular region; nucleus; plasma membrane Molecular Function: calcium ion binding; copper ion binding; protein binding; RAGE receptor binding; zinc ion binding Biological Process: activation of NF-kappaB transcription factor; cytokine secretion; defense response to bacterium; defense response to fungus; innate immune response; killing of cells of another organism; mast cell activation; monocyte chemotaxis; neutrophil chemotaxis; neutrophil degranulation; positive regulation of I-kappaB kinase/NF-kappaB cascade; positive regulation of inflammatory response; positive regulation of MAP kinase activity; xenobiotic metabolic process
Research Articles on S100-A12	**1.** These data suggest that S100A12 is part of an innate and adaptive inducible antimicrobial network that contributes to host defense against mycobacteria in infected macrophages
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