ARG70231
Human S100A12 recombinant protein (His-tagged, C-ter)

Package: 100 µg
Store at: -20°C

Summary

Product Description	E. coli expressed, His-tagged (C-ter) Human S100A12 recombinant protein.
Tested Reactivity	Hu
Tested Application	SDS-PAGE
Target Name	S100A12
Species	Human
A.A. Sequence	Met1 - Glu92 of Human S100A12 (NP_005612.1) with 6X His tag at the C - terminus.
Expression System	E. coli
Alternate Names	Calgranulin-C; S100 calcium-binding protein A12; p6; Neutrophil S100 protein; Calcium-binding protein in amniotic fluid 1; MRP-6; ENRAGE; Migration inhibitory factor-related protein 6; CAAF1; EN-RAGE; Protein S100-A12; CAGC; Extracellular newly identified RAGE-binding protein; CGRP; MRP6

Properties

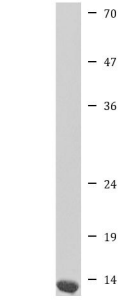
Form	Powder
Purification Note	0.22 µm filter sterilized. Endotoxin level is 97% (by SDS-PAGE)
Buffer	PBS (pH 7.4)
Reconstitution	Reconstitute to a concentration of 0.1 - 0.5 mg/ml in sterile distilled water.
Storage instruction	For long term, lyophilized protein should be stored at -20°C or -80°C. After reconstitution, aliquot and store at -20°C for up to one month, at 2-8°C for up to one week. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	S100A12
Gene Full Name	S100 calcium binding protein A12
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 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]
Function	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. [UniProt]
Calculated Mw	11 kDa
Cellular Localization	Secreted. Cytoplasm. Cytoplasm, cytoskeleton. Cell membrane; Peripheral membrane protein. Note=Predominantly localized in the cytoplasm. Upon elevation of the intracellular calcium level, translocated from the cytoplasm to the cytoskeleton and the cell membrane. Upon neutrophil activation is secreted via a microtubule-mediated, alternative pathway. [UniProt]

Images



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ARG70231 Human S100A12 recombinant protein (His-tagged, C-ter) SDS-PAGE image

SDS-PAGE analysis of ARG70231 Human S100A12 recombinant protein (His-tagged, C-ter).