

Datasheet for ABIN749273
anti-S100A8 antibody (AA 25-89)[Go to Product page](#)**1** Image**1** Publication

Overview

Quantity:	100 µL
Target:	S100A8
Binding Specificity:	AA 25-89
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This S100A8 antibody is un-conjugated
Application:	ELISA, Flow Cytometry (FACS), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunofluorescence (Cultured Cells) (IF (cc))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from mouse S100-A8
Isotype:	IgG
Cross-Reactivity:	Human, Mouse
Predicted Reactivity:	Rat
Purification:	Purified by Protein A.

Target Details

Target:	S100A8
Alternative Name:	S100A8 (S100A8 Products)

Target Details

Background:	<p>Synonyms: P8, MIF, NIF, CAGA, CFAG, CGLA, L1Ag, MRP8, CP-10, MA387, 60B8AG, Protein S100-A8, Calgranulin-A, Calprotectin L1L subunit, Cystic fibrosis antigen, Leukocyte L1 complex light chain, Migration inhibitory factor-related protein 8, MRP-8, S100 calcium-binding protein A8, Urinary stone protein band A, S100A8</p> <p>Background: S100A8 is a calcium- and zinc-binding protein which plays a prominent role in the regulation of inflammatory processes and immune response. It can induce neutrophil chemotaxis and adhesion. Predominantly found as calprotectin (S100A8/A9) which has a wide plethora of intra- and extracellular functions. The intracellular functions include: facilitating leukocyte arachidonic acid trafficking and metabolism, modulation of the tubulin-dependent cytoskeleton during migration of phagocytes and activation of the neutrophilic NADPH-oxidase. Activates NADPH-oxidase by facilitating the enzyme complex assembly at the cell membrane, transferring arachidonic acid, an essential cofactor, to the enzyme complex and S100A8 contributes to the enzyme assembly by directly binding to NCF2/P67PHOX. The extracellular functions involve proinflammatory, antimicrobial, oxidant-scavenging and apoptosis-inducing activities. Its proinflammatory activity includes 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 pattern recognition receptors such as Toll-like receptor 4 (TLR4) and receptor for advanced glycation endproducts (AGER). Binding to TLR4 and AGER activates the MAP-kinase and NF-kappa-B signaling pathways resulting in the amplification of the proinflammatory cascade. Has antimicrobial activity towards bacteria and fungi and exerts its antimicrobial activity probably via chelation of Zn(2+) which is essential for microbial growth. Can induce cell death via autophagy and apoptosis and this occurs through the cross-talk of mitochondria and lysosomes via reactive oxygen species (ROS) and the process involves BNIP3. Can regulate neutrophil number and apoptosis by an anti-apoptotic effect, regulates cell survival via ITGAM/ITGB and TLR4 and a signaling mechanism involving MEK-ERK.</p>
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Gene ID:	6279
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UniProt:	P05109
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Pathways:	Transition Metal Ion Homeostasis , Positive Regulation of Endopeptidase Activity , S100 Proteins
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Application Details

Application Notes:	ELISA 1:500-1000
	FCM 1:20-100
	IHC-P 1:200-400

Application Details

IHC-F 1:100-500
IF(IHC-P) 1:50-200
IF(IHC-F) 1:50-200
IF(ICC) 1:50-200

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 µg/µL

Buffer: 0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.

Preservative: ProClin

Precaution of Use: This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

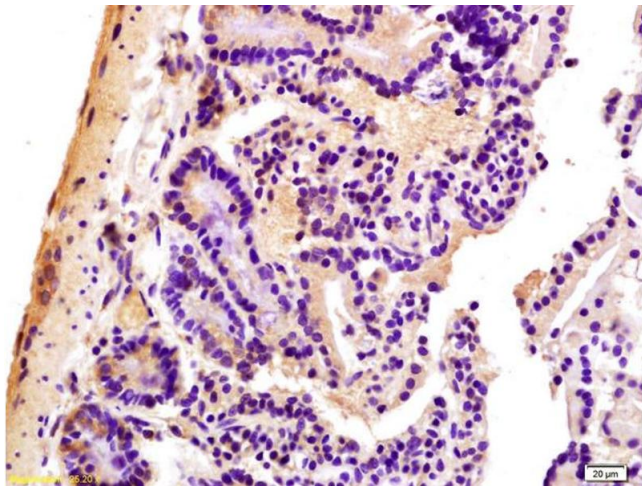
Storage: 4 °C,-20 °C

Storage Comment: Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Expiry Date: 12 months

Publications

Product cited in: Nguyen, Fentress, Qiu, Yun, Cox, Chawla: "Circadian gene Bmal1 regulates diurnal oscillations of Ly6C(hi) inflammatory monocytes." in: **Science (New York, N.Y.)**, Vol. 341, Issue 6153, pp. 1483-8, (2013) ([PubMed](#)).



Immunohistochemistry

Image 1. Formalin-fixed and paraffin embedded mouse colon labeled with Anti-MRP8/S100A8 Polyclonal Antibody, Unconjugated (ABIN749273) at 1:200 followed by conjugation to the secondary antibody and DAB staining.