Human S100A9 Antibody Pair Set

Catalog No. E-KAB-0254 **Applications** ELISA

Synonyms MRP14, 60B8AG, CAGB, CFAG, CGLB, L1AG, LIAG, MAC387, MIF, NIF, P14, Calgranulin-B

Kit components & Storage

Title	Specifications	Storage
Human S100A9 Capture Antibody	1 vial, 100 μ g	Store at -20℃ for one year. Avoid freeze / thaw cycles.
Human S100A9 Detection Antibody (Biotin)	1 vial, 50 μL	Store at -20℃ for one year. Avoid freeze / thaw cycles.

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Product Information

Items		Characteristic (E-KAB-0254)	
		Human S100A9 Capture Antibody	Human S100A9 Detection Antibody (Biotin)
Immunogen Information	Immunogen	Recombinant Human S100A9 protein	Recombinant Human S100A9 protein
	Swissprot	P06702	
Product details	Reactivity	Human	Human
	Host	Sheep	Sheep
	Conjugation	Unconjugated	Biotin
	Concentration	0.5mg/mL	/
	Buffer	PBS with 0.04% Proclin 300, 50% glycerol, pH 7.4	PBS with 0.04% Proclin 300, 1% protective protein, 50% glycerol, pH 7.4
	Purify	Antigen Affinity	Antigen Affinity
	Specificity	Detects Human S100A9 in ELISAs.	

Toll-free: 1-888-852-8623 Tel: 1-832-243-6086 Fax: 1-832-243-6017
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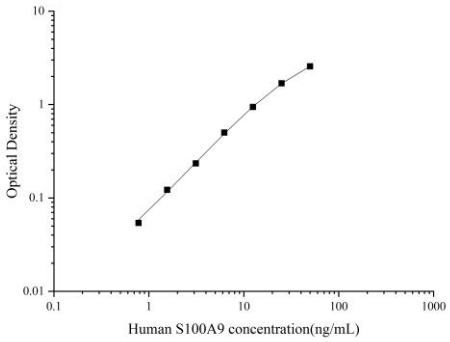
Applications

Human S100A9 Sandwich ELISA Assay:

	Recommended Concentration/Dilution	Reagent	Images
ELISA Capture	0.5-4μg/mL	Human S100A9 Capture Antibody	
ELISA Detection	1:1000-1:10000	Human S100A9 Detection Antibody (Biotin)	

Note: This standard curve is only for demonstration purposes. A standard curve should be generated for each assay!

Background

S100A9 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,adhesion,can increase the bactericidal activity of neutrophils by promoting phagocytosis via activation of SYK,PI3K/AKT,and ERK1/2 and can induce degranulation of neutrophils by a MAPK-dependent mechanism.

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 pro-inflammatory,antimicrobial,oxidant-scavenging and apoptosis-inducing activities.

Its pro-inflammatory 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 pro-inflammatory cascade.

Has antimicrobial activity towards bacteria and fungi and exerts its antimicrobial activity probably via chelation of Zn2+ 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

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