

Datasheet for ABIN6242255
anti-S100A9 antibody (AA 22-56)



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1 Image

Overview

Quantity:	200 µL
Target:	S100A9
Binding Specificity:	AA 22-56
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This S100A9 antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Immunogen:	This S100A9 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 22-56 amino acids from the Central region of human S100A9.
Clone:	RB53567
Isotype:	Ig Fraction
Purification:	This antibody is purified through a protein A column, followed by peptide affinity purification.

Target Details

Target:	S100A9
Alternative Name:	S100A9 (S100A9 Products)
Background:	S100A9 is a calcium- and zinc-binding protein which plays a prominent role in the regulation of

Target Details

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 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. Its role as an oxidant scavenger has a protective role in preventing exaggerated tissue damage by scavenging oxidants. Can act as a potent amplifier of inflammation in autoimmunity as well as in cancer development and tumor spread.

Molecular Weight:	13242
UniProt:	P06702
Pathways:	Transition Metal Ion Homeostasis , Positive Regulation of Endopeptidase Activity , S100 Proteins

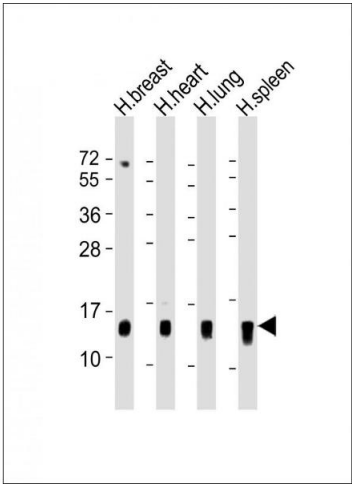
Application Details

Application Notes:	WB: 1:500-1:1000
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Expiry Date:	6 months

Images



Western Blotting

Image 1. All lanes : Anti-S100A9 Antibody (Center) at 1:500-1:1000 dilution Lane 1: human breast lysate Lane 2: human heart lysate Lane 3: human lung lysate Lane 4: human spleen lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 13 kDa Blocking/Dilution buffer: 5 % NFDM/TBST.