MRP8/S100A8 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	MRP8/S100A8, Polyclonal Antibody
Full Product Name	MRP8/S100A8 Conjugated Antibody
Product Gene Name	anti-MRP8/S100A8 antibody
Product Synonym Gene Name	S100A8
Product Synonym Names	60B8Ag antibody; AI323541 antibody; B8Ag antibody; BEE11 antibody; CAGA antibody; Calgranulin-A antibody; Calprotectin L1L subunit antibody; Calprotectin; included antibody; CFAG antibody; CGLA antibody; Chemotactic cytokine CP-10 antibody; CP-10 antibody; Cystic fibrosis antigen antibody; L1Ag antibody; Leukocyte L1 complex light chain antibody; MA387 antibody; MIF antibody; Migration inhibitory factor-related protein 8 antibody; MRP-8 antibody; Myeloid-related protein 8 antibody; Neutrophil cytosolic 7 kDa protein antibody; NIF antibody; p8 antibody; Pro-inflammatory S100 cytokine antibody; Protein S100-A8 antibody; S100 calcium binding protein A8 (calgranulin A) antibody; S100 calcium binding protein A8 antibody; S100 calcium-binding protein A8 antibody; S100A8 antibody; S100A8/S100A9 complex; included antibody; S10A8_HUMAN antibody; Urinary stone protein band A antibody
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Preparation and Storage	Store at 4 degree C for 6 months.
Molecular Weight	10,835 Da
OMIM	123885
3D Structure	ModBase 3D Structure for P05109
Immunogen	Recombinant protein
Conjugation	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Excitation Emission	AF350: 346nm/442nm
Applications Tested/Suitable for anti-MRP8/S100A8 antibody	Most Applications
Application Notes for anti-MRP8/S100A8 antibody	Suggested Dilution: AF350 conjugated: most applications: 1:50-1:250 AF405 conjugated: most applications: 1:50-1:250 AF488 conjugated: most applications: 1:50-1:250 AF555 conjugated: most applications: 1:50-1:250 AF594 conjugated: most applications: 1:50-1:250 AF647 conjugated: most applications: 1:50-1:250 AF680 conjugated: most applications: 1:50-1:250 AF750 conjugated: most applications: 1:50-1:250 Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1:50-1:1000

Related Product Information for anti-MRP8/S100A8 antibody	The family of EF-hand type Ca2+-binding proteins includes Calbindin (previously designated vitamin D-dependent Ca2+-binding protein), S-100 alpha and beta , Cal-granulins A (also designated MRP8), B (also designated MRP14) and C (S-100 like proteins) and the parvalbumin family members, including parvalbumin alpha and parvalbumin beta (also designated oncomodulin). Calbindin, S-100 proteins and parvalbumin proteins are each expressed in neural tissues. In addition, S-100 alpha and beta are present in a variety of other tissues and Calbindin is present in intestine and kidney. Parvalbumin alpha is also found in fast-contracting/ relaxing skeletal muscle fibers and parvalbumin beta is found in many tumor tissues as well as in the organ of Corti. Calbindin, S-100 proteins and parvalbulmins have all been detected in Leydig cells and the testis. These proteins are thought to play a role in hormone production and spermatogenesis. Calgranulin is expressed in macrophages and epithelial cells.
Other Notes	Small volumes of anti-MRP8/S100A8 antibody 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.
Searchable Terms for MRP8/S100A8 purchase	MBS9455928 is an antibody targeting MRP8/S100A8. Also known as MRP8/S100A8 Conjugated Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MRP8/S100A8. It may not necessarily be applicable to this product.

NCBI GI #	47115285
NCBI Accession #	CAG28602.1
UniProt Primary Accession #	P05109
UniProt Secondary Accession #	Q5SY70; Q9UC84; Q9UC92; Q9UCJ0; Q9UCM6; A8K5L3; D3DV37
NCBI Official Full Name	S100A8
UniProt Protein Name	Protein S100-A8
UniProt Synonym Protein Names	Calgranulin-A; Calprotectin L1L subunit; Cystic fibrosis antigen; CFAG; Leukocyte L1 complex light chain; Migration inhibitory factor-related protein 8; MRP-8; p8; S100 calcium-binding protein A8; Urinary stone protein band A
UniProt Gene Name	S100A8
UniProt Synonym Gene Names	CAGA; CFAG; MRP8; CFAG; MRP-8; p8
UniProt Entry Name	S10A8_HUMAN

UniProt Comments for MRP8/S100A8	S100A8: 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, transfering 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 proinfammatory, 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. Belongs to the S-100 family. Chromosomal Location of Human Ortholog: 1q21 Cellular Component: extracellular space; cytoskeleton; plasma membrane; extracellular region; nucleus; cytosol Molecular Function: arachidonic acid binding; RAGE receptor binding; protein binding; zinc ion binding; microtubule binding; calcium ion binding Biological Process: caspase activation; neutrophil chemotaxis; chronic inflammatory response; chemokine production; wound healing; cytokine production; positive regulation of peptide secretion; response to lipopolysaccharide; positive regulation of cell growth; leukocyte migration during inflammatory response; activation of NF-kappaB transcription factor; sequestering of zinc ion; response to ethanol; response to zinc ion; defense response to bacterium; autophagy; innate immune response; inflammatory response; defense response to fungus; acute inflammatory response; regulation of cytoskeleton organization and biogenesis; positive regulation of inflammatory response
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