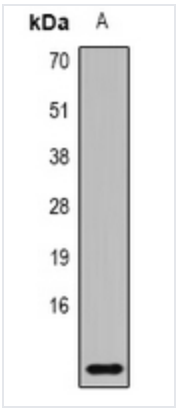
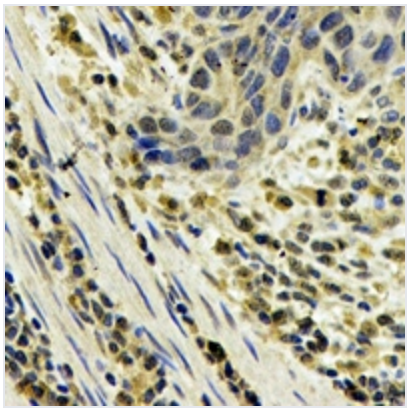
MRP8 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

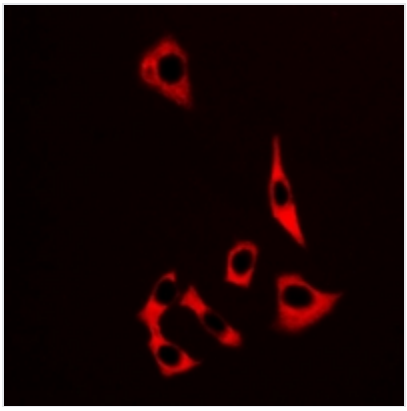
Product Name	MRP8, Polyclonal Antibody
Full Product Name	Rabbit anti-MRP8 Antibody
Product Gene Name	anti-MRP8 antibody
Product Synonym Names	CAGA; CFAG; MRP8; Protein S100-A8; Calgranulin-A; Calprotectin L1L subunit; Cystic fibrosis antigen; CFAG; Leukocyte L1 complex light chain; Migration inhibitory factor-related protein 8; MRP-8; p8; S100 calcium-binding protein A8; Urinary stone protein band A
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Rat
Form/Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Purity/Purification	The antibody was purified by immunogen affinity chromatography.
Concentration	1mg/mL (lot specific)
Preparation and Storage	Store at -20 degree C. Avoid repeated freeze/thaw cycles.
Molecular Weight	10,835 Da
OMIM	123885
3D Structure	ModBase 3D Structure for P05109
Immunogen	Recombinant full length protein of human MRP8
Product Categories/Family for anti-MRP8 antibody	Primary antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-MRP8 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunochemistry (IC)
Application Notes for anti-MRP8 antibody	WB: 1:500-1:2000 IHC: 1:50-1:200 IF:IC: 1:50-1:200
Related Product Information for anti-MRP8 antibody	MBS4509123 is an antibody targeting MRP8. Also known as Rabbit anti-MRP8 Antibody. Reactive in Human, Rat. Host: Rabbit.
Other Notes	Small volumes of anti-MRP8 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.



Western Blot (WB) of anti-MRP8 antibody
Western blot analysis of MRP8 expression in THP1 (A) whole cell lysates.



Immunohistochemistry (IHC) of anti-MRP8 antibody
Immunohistochemical analysis of MRP8 staining in human esophageal cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescence (IF) of anti-MRP8 antibody
Immunofluorescent analysis of MRP8 staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

ADDITIONAL DETAILS

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

NCBI GI #	47115285
NCBI GeneID	0
NCBI Accession #	CAG28602.1
UniProt Primary Accession #	P05109
UniProt Secondary Accession #	Rat:P50115
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 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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