Human S100A8 Antibody

Monoclonal Mouse IgG_1 Clone # 749916

Catalog Number: MAB4570

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human S100A8 in direct ELISAs. In direct ELISAs, 100% cross-reactivity with recombinant human (rh) S100A8/A9 is observed and no cross-reactivity with rhS100A9, recombinant mouse (rm) S100A8, rmS100A9, or rmS100A8/A9 is observed.
Source	Monoclonal Mouse IgG_1 Clone # 749916
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human S100A8 Met1-Glu93 Accession # P05109
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

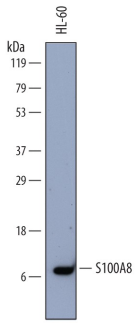
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below

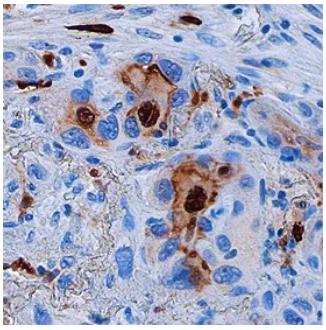
DATA

Western Blot



Detection of Human S100A8 by Western Blot. Western blot shows lysates of HL-60 human acute promyelocytic leukemia cell line. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human S100A8 Monoclonal Antibody (Catalog # MAB4570) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for S100A8 at approximately 11 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



S100A8 in Human Lung Cancer Tissue. S100A8 was detected in immersion fixed paraffin-embedded sections of human lung cancer tissue using Mouse Anti-Human S100A8 Monoclonal Antibody (Catalog # MAB4570) at 15 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to nuclei and cytoplasm of cancer cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

S100A8 (also known as MRP8 and calgranulin A) is a 10 kDa member of the S100 family, EF-hand superfamily of Ca-binding proteins. It is produced by neutrophils and monocytes, and forms Ca-dependent heterodimer/heterotetramer complexes (termed calprotectin) with S100A9. It functions both intracellularly and extracellularly, where it binds to RAGE and CD36. Human S100A8 is 93 amino acids (aa) in length. It contains two EF-hand motifs (aa 12-47 and 46-81) and one high-affinity Ca-binding site (aa 59-70). There may be one splice form that shows a 15 aa substitution for the C-terminal 14 amino acids. Although mouse S100A8 is cleaved by MMP-2 after Asn21, it is unclear if human S100A8 is susceptible. Full-length human S100A8 is 57% and 74% aa identical to mouse and canine S100A8, respectively.

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