Human S100A9 Antibody

Monoclonal Mouse IgG_{2B} Clone # 474315

Catalog Number: MAB5578

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human S100A9 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human (rh) S100A1, 2, 7, 8, 11, 13, rhS100B, rhS100P, recombinant mouse S100A4, 6, 10, or 16 is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 474315
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human S100A9 Met1-Pro114 Accession # P06702
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 as a 0.2 μm filtered solution in PBS.

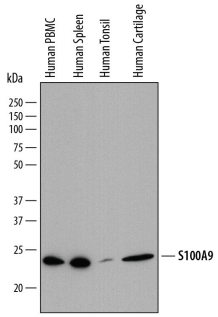
APPLICATIONS

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	0.5 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below

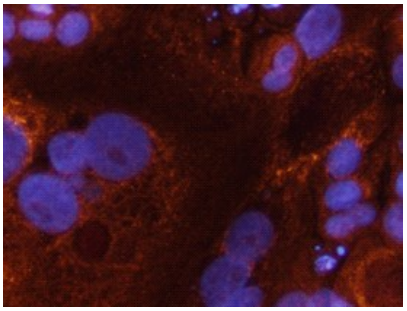
DATA

Western Blot



Detection of Human S100A9 by Western Blot. Western blot shows lysates of human peripheral blood mononuclear cells (PBMC), human spleen tissue, human tonsil tissue, and human cartilage tissue. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-Human S100A9 Monoclonal Antibody (Catalog # MAB5578) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for S100A9 at approximately 14 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



S100A9 in Capan-1 Human Cell Line. S100A9 was detected in immersion fixed Capan-1 human pancreatic adenocarcinoma cell line using 10 µg/mL Mouse Anti-Human S100A9 Monoclonal Antibody (Catalog # MAB5578) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
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

Human S100A9 (also MRP-14, Calgranulin-B, and p14) is a 14 kDa member of the S100 family of EF-hand calcium-binding proteins. It is 114 amino acids (aa) in length and contains short sequential modules. There is an N-terminal helical region, followed by a calcium-binding EF-hand domain, two more helical regions, a second EF-hand domain, and three additional helical regions. S100A9 will noncovalently heterodimerize with S100A8. In the presence of calcium, this heterodimer will form a heterotetramer. S100A9 is expressed in granulocytes, monocytes, and macrophages during acute and chronic inflammation. Human S100A9 shares 62% and 57% aa identity with rat and mouse S100A9, respectively.