

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse S100A8 in direct ELISAs and Western blots. In direct ELISAs and Western blots, 40% cross-reactivity with recombinant human (rh) S100A8 is observed and no cross-reactivity with recombinant mouse (rm) S100A4, rmS100A9, rmS100A10, rmS100A11, rhS100B, or rhS100P is observed.
<b>Source</b>	Monoclonal Rat IgG <sub>2B</sub> Clone # 335806
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse S100A8 Met1-Glu89 (predicted) Accession # P27005
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

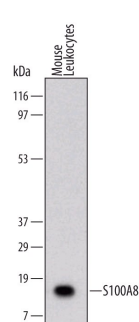
## APPLICATIONS

**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
<b>Western Blot</b>	2 µg/mL	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below

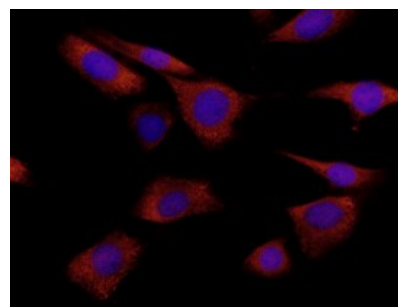
## DATA

### Western Blot



**Detection of S100A8 Rat by Western Blot.** Western blot shows lysates of mouse leukocyte. PVDF membrane was probed with 2 µg/mL of Rat Anti-Mouse S100A8 Monoclonal Antibody (Catalog # MAB3059) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005). A specific band was detected for S100A8 at approximately 10 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immoblot Buffer Group 1](#).

### Immunocytochemistry



**S100A8 in NIH-3T3 Mouse Cell Line.** S100A8 was detected in immersion fixed NIH-3T3 mouse embryonic fibroblast cell line using 10 µg/mL Rat Anti-Mouse S100A8 Monoclonal Antibody (Catalog # MAB3059) for 3 hours at room temperature. Cells were stained (red) and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Mouse S100A8 (also CP-10, calgranulin A and MRP8) is a 10 kDa member of the S100 family of calcium-binding proteins. The S100A8 protein is 89 amino acids (aa) in length and contains short, sequential modules. There is an N-terminal α-helix, followed by a calcium-binding EF-hand segment, and a C-terminal α-helix. S100A8 will noncovalently heterodimerize with S100A9. In the presence of calcium, this heterodimer will form a heterotetramer. The dimeric complex is both intracellular and extracellular. It binds heparan sulfate and is chemotactic for PMNs and macrophages. Mouse S100A8 shares 80% and 57% aa sequence identity with rat and human S100A8, respectively.