**DESCRIPTION**

**Species Reactivity**  
Mouse

**Specificity**  
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.

**Source**  
Monoclonal Rat IgG2B Clone # 335806

**Purification**  
Protein A or G purified from hybridoma culture supernatant

**Immunogen**  
E. coli-derived recombinant mouse S100A8  
Met1-Glu89 (predicted)

**Accession #**  
P27005

**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.

<table>
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<th>Recommended Concentration</th>
<th>Sample</th>
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| Western Blot | 2 μg/mL  
| Immunocytochemistry | 8-25 μg/mL |

**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 Immunoblot 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**

**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**

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.