

ORDERING INFORMATION

Catalog Number: AF3059

Lot Number: WIT01

Size: 100 µg

Formulation: 0.2 µm filtered solution in PBS with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: mouse S100A8

Immunogen: *E. coli*-derived rmS100A8

Ig Type: goat IgG

Applications: Western blot
Immunocytochemistry
Direct ELISA

Preparation

Produced in goats immunized with purified, *E. coli*-derived, recombinant mouse S100A8 (rmS100A8; aa 1 - 89; Accession # P27005). Mouse S100A8 specific IgG was purified by mouse S100A8 affinity chromatography. Mouse S100A8, also known as CP-10, Calgranulin A and MRP8, is a 10 kDa member of the S100 family of calcium-binding proteins. S100A8 contains short sequential modules, including an N-terminal α -helix, a Ca^{++} -binding EF-hand segment, a short central linker region, a second EF-hand segment, and a C-terminal α -helix. S100A8 noncovalently heterodimerizes with S100A9. In the presence of Ca^{++} , the heterodimers form heterotetramers. The dimeric complex is found both intracellularly and extracellularly. It binds to heparan sulfate and is chemotactic for PMNs and macrophages. The amino acid sequence of mouse S100A8 is 80% and 57% identical to that of rat and human S100A8, respectively.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.5 mL of PBS is used, the antibody concentration will be 0.2 mg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody has been selected for its ability to recognize mouse S100A8 in the applications listed below. In direct ELISAs and western blots, this antibody shows less than 5% cross-reactivity with rmS100A9, rmS100A10 and rhS100B.

Applications

Western blot - This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect mouse S100A8. The detection limit for rmS100A8 is approximately 25 ng/lane and 5 ng/lane under non-reducing and reducing conditions, respectively.

Immunocytochemistry - This antibody has been used at a concentration of 10 µg/mL to detect S100A8 in mouse NmuMG cells. Cells were fixed with PBS containing 4% paraformaldehyde for 20 minutes at room temperature and blocked with PBS containing 10% normal donkey serum, 0.1% Triton X-100, and 1% BSA for 45 minutes at room temperature. After blocking, cells were incubated with diluted primary antibody overnight at 4° C followed by Rhodamine Red-coupled anti-goat IgG at room temperature in the dark for one hour. Between each step, cells were washed with PBS containing 0.1% BSA.

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect mouse S100A8. The detection limit for rmS100A8 is approximately 0.2 ng/well.

Optimal dilutions should be determined by each laboratory for each application.