Mouse Serum Amyloid A1/A2 Antibody
Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2948

**DESCRIPTION**

**Species Reactivity** Mouse

**Specificity** Detects mouse Serum Amyloid A1/SAA1 and mouse Serum Amyloid A2/SAA2 in direct ELISAs and Western blots. In direct ELISAs, less than 3% cross-reactivity with recombinant human (rh) SAA1, mSAA2, recombinant mouse (rm) SAA3, and mSAA4 is observed.

**Source** Polyclonal Goat IgG

**Purification** Antigen Affinity-purified

**Immunogen** *E. coli*-derived recombinant mouse Serum Amyloid A1 Gly20-Tyr122

**Accession #** P05366

**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. We recommend General Protocols are available in the Technical Information section on our website.

<table>
<thead>
<tr>
<th>APPLICATIONS</th>
<th>Recommended Concentration</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Blot</td>
<td>1 µg/mL</td>
<td>See Below</td>
</tr>
<tr>
<td>Immunohistochemistry</td>
<td>5-15 µg/mL</td>
<td>See Below</td>
</tr>
<tr>
<td>Simple Western</td>
<td>50 µg/mL</td>
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**ELISA**

This antibody functions as an ELISA detection antibody when paired with Rat Anti-Mouse Serum Amyloid A1/A2 Monoclonal Antibody (Catalog # MAB2948). This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Mouse Serum Amyloid A DuoSet ELISA Kit (Catalog # DY2948-05) for convenient development of a sandwich ELISA or the Mouse Serum Amyloid A Quantikine ELISA Kit (Catalog # MSA000) for a complete optimized ELISA.

**DATA**

**Western Blot**

Detection of Mouse Serum Amyloid A1/A2 by Western Blot. Western blot shows mouse serum and mouse plasma. PVDF membrane was probed with 1 µg/mL of Goat Anti-Mouse Serum Amyloid A1/A2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2948) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling when primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. Specific staining was localized to cytoplasm. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

**Immunohistochemistry**

Serum Amyloid A1/A2 in Mouse Liver: Serum Amyloid A1/A2 was detected in perfusion fixed frozen sections of mouse liver using Goat Anti-Mouse Serum Amyloid A1/A2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2948) at 15 µg/mL overnight at 4 °C. Tissue was stained in the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling when primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. Specific staining was localized to cytoplasm. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

**Simple Western**

Detection of Mouse Serum Amyloid A1/A2 by Simple Western™. Simple Western lane view shows mouse serum, loaded at a 1:100 dilution. A specific band was detected for Serum Amyloid A1/A2 at approximately 14 kDa (as indicated) using 50 µg/mL of (Catalog # AF2948) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

**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.

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**ELISA**

**Mouse Serum Amyloid A1/A2 ELISA Standard Curve.**

Recombinant Mouse Serum Amyloid A1/A2 protein was serially diluted 2-fold and captured by Rat Anti-Mouse Serum Amyloid A1/A2 Monoclonal Antibody (Catalog # MAB2948) coated on a Clear Polystyrene Microplate (Catalog # DY990). Goat Anti-Mouse Serum Amyloid A1/A2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2948) was biotinylated and incubated with the protein captured on the plate. Detection of the standard curve was achieved by incubating Streptavidin-HRP (Catalog # DY998) followed by Substrate Solution (Catalog # DY999) and stopping the enzymatic reaction with Stop Solution (Catalog # DY994).

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**PREPARATION AND STORAGE**

**Reconstitution**

Reconstitute at 0.2 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.

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**BACKGROUND**

Mouse serum amyloid A protein-1 (SAA1) is a multifunctional apolipoprotein produced by hepatocytes in response to pro-inflammatory cytokines. It is secreted as a 12 kDa, 103 amino acid (aa), nonglycosylated polypeptide and circulates as part of the HDL complex. The SAA1 gene is one of three SAA genes in mouse, and, based on human, is likely to be allelic. The SAA1 gene product differs from the SAA2 gene product by only nine amino acids. In human, circulating SAA1 shows multiple proteolytically-generated isoforms, with anywhere from one to three amino acids being cleaved from either the N- or C-terminus. The same situation may exist in mouse. The amino acid sequence of mature mouse SAA1 is 72%, 72%, 67%, and 74% identical to mature human, rabbit, equine, and hamster SAA1, respectively.