**DESCRIPTION**

**Species Reactivity** Mouse

**Specificity** Detects mouse Serum Amyloid A1/SAA1 and mouse Serum Amyloid A2/SAA2 in direct ELISAs and Western blots.

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

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

**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 # MSAA00) 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) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # Catalog # HAF017). A specific band was detected for Serum Amyloid A1/A2 at approximately 12 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Detection of Mouse Serum Amyloid A1/A2 by Western Blot.

Western blot shows recombinant mouse Serum Amyloid A1 and recombinant mouse Serum Amyloid A2. PVDF membrane was probed with 1 µg/mL of Goat Anti-Mouse Serum Amyloid A1/A2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2948) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # Catalog # HAF017). A specific band was detected for Serum Amyloid A1/A2 at approximately 12 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.
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 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.

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 # Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

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 # Catalog # MAB2948) coated on a Clear Polystyrene Microplate (Catalog # 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 # Catalog # DY998) followed by Substrate Solution (Catalog # Catalog # DY999) and stopping the enzymatic reaction with Stop Solution (Catalog # Catalog # DY994).

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.

Stability & Storage

*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

- 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 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.