

#### DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects human and mouse Pentraxin 2/SAP in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse Pentraxin 2/SAP Gln21-Asp224 Accession # P12246
<b>Conjugate</b>	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
<b>Formulation</b>	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

#### 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.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

#### BACKGROUND

Pentraxin 2 (also known as Serum Amyloid P Component or SAP) is a secreted glycoprotein that is a universal non-fibrillar component of amyloid deposits. Amyloid is an abnormal extracellular deposit of insoluble protein fibrils that can lead to tissue damage and disease (1-3). Pentraxin 2 belongs to the pentraxin (pentaxin) family, whose members have a characteristic pentagonal discoid arrangement of five non-covalently bound subunits (4). Pentraxin domains contain the consensus sequence, HxCx(S/T)WxS (x = any amino acid), a lectin fold, and two calcium-binding sites (1). They bind to a variety of unrelated molecules in a calcium-dependent lectin-like manner (1, 4, 5). Pentraxin 2 and C-reactive protein (CRP) are members of the classical or short pentraxin subfamily and share 46% amino acid (aa) identity (1). Mouse Pentraxin 2 is the major acute-phase protein whose expression is dependent on complement activation, IL-6 and/or IL-1β, while in humans, CRP is the major acute-phase protein (2, 5, 9). Both are produced and secreted by liver hepatocytes and circulate in plasma. The 204 aa mature mouse Pentraxin 2 shares 79% aa identity with rat Pentraxin 2 and 63-70% aa identity with human, guinea pig, golden hamster, porcine, and bovine Pentraxin 2 (2, 5). Amyloid deposits containing Pentraxin 2 are implicated in a diverse range of diseases including Alzheimer's, prion diseases, type 2 diabetes and various systemic amyloidoses (3, 6, 7). Pentraxin 2 regulates the solubility of amyloid fibrils and protects them from degradation. In addition to its pathogenic role, Pentraxin 2 also has an important physiological function in innate immunity (8). It is an opsonin that interacts with all three types of human Fcγ receptors that mediate neutrophil phagocytosis (8). Pentraxin 2 has been proposed to bind and sequester a variety of ligands including auto-antigens, apoptotic cells, chromatin, DNA, and micro-organisms (1-3). Pentraxin 2 is also a normal component of basement membranes (1).

#### PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.