Mouse Pentraxin 2/SAP Alexa Fluor® 700-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 300103

Catalog Number: FAB2558N

100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Pentraxin 2/SAP in direct ELISAs and Western blots. In direct ELISAs and Western blots, 100% cross-reactivity with recombinant rat Pentraxin 2/SAP is observed. In Western blots, 100% cross-reactivity with recombinant human (rh
Source	Monoclonal Rat IgG_{2A} Clone # 300103
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Pentraxin 2/SAP Gln21-Asp224 Accession # P12246
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	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

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	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 Amyoid 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 63-68% 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).

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Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475