

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects mouse Periostin/OSF-2 in direct ELISAs and Western blots.
Source	Monoclonal Rat IgG _{2A} Clone # 345613
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse Periostin isoform 2 Asn24-Gln811 Accession # NP_056599
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.
Immunocytochemistry	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

Mouse periostin, also known as OSF-2 (osteoblast-specific factor 2) is a 170 kDa, secreted, homodimeric protein that belongs to the periostin family of the FAS1 superfamily of molecules (1-4). It is a TGF- β inducible molecule that serves as both an adhesion molecule and tumor suppressor (2, 5, 6, 7). It is synthesized as a 838 amino acid (aa) precursor that contains a 23 aa signal sequence and an 815 aa mature region (2, 8). It is unknown if the molecule has any significant glycosylation (2). Based on human OSF-2, the homodimer is not disulfide-linked (3). The molecule consists of two distinct regions. The N-terminus contains an 55 aa EMI domain, while the C-terminus contains four, 130 aa fasciculin type 1 (or FAS1) domains. The EMI domain is cysteine-rich and shows a highly basic α -helix (9). Each FAS1 repeat exhibits a novel 7-stranded β -wedge with a multiple α -helix fold (1, 8). Multiple alternate splice forms are known to exist C-terminal (aa 672-812) to the four-fold FAS1 repeats. These mature molecules are 760, 761, 787, and 788 aa in length and show block deletions of 54 aa, 27 aa and/or 28 aa (10). The significance of the alternate splice forms is not clear. They do, however, appear to be temporally regulated (6). OSF-2 is known to bind to $\alpha_v\beta_3$ and $\alpha_v\beta_5$ integrins (3). It is synthesized by smooth muscle cells, fibroblasts, and osteoblasts (2, 5, 7). Mature mouse OSF-2 is 98%, 92%, and 91% aa identical to rat, canine, and human OSF-2, respectively.

PRODUCT SPECIFIC NOTICES

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