

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Progranulin/PGRN in direct ELISAs and Western blots. In direct ELISAs and Western blots, 100% cross-reactivity with recombinant human Progranulin is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 333731
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Progranulin/PGRN Thr18-Leu589 Accession # P28798
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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.
Immunohistochemistry	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

Progranulin, also known as acrogranin, PC cell-derived growth factor (PCDGF) and epithelin/granulin precursor, is a ubiquitously expressed, 88 kDa, secreted glycoprotein (1-3). Structurally, it belongs to none of the well-established growth factor families (4). Mouse Progranulin is 589 amino acids (aa) in length and contains a 17 aa signal sequence and a 572 aa mature region that has four potential sites for N-linked glycosylation. It has a highly repetitive organization, containing seven tandem copies of a 55-57 aa consensus motif that contains 12 conserved cysteine residues: VXCX₅₋₆CX₅CCX₈CCX₆CCXD_{X2}HCCPX₄CX₅₋₆CX₂ (1). Progranulin is secreted in an intact form (2, 4) or undergoes proteolysis leading to the release of multiple peptides made from the seven tandem repeats, the granulins (5-7). Mouse Progranulin shares 87% and 75% aa sequence identity with rat and human Progranulin, respectively. Progranulin is involved in the regulation of cellular proliferation, as well as differentiation, development, and pathological processes (4). It has been isolated as a differentially expressed gene during mesothelial differentiation (8), macrophage development (9), development synovium of rheumatoid arthritis and osteoarthritis (10), sexual differentiation of the brain (11), and has also been shown to be a mediator of cartilage proliferation plus of wound response and tissue repair (4, 12-13). High levels of Progranulin expression have been found to be associated with several human cancers, and are believed to contribute to tumorigenesis in breast cancer, clear cell renal carcinoma, invasive ovarian carcinoma, glioblastoma, adipocyte teratoma, and multiple myeloma (4, 5, 12, 14-20).

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