

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Progranulin/PGRN in ELISAs. In sandwich immunoassays, no cross-reactivity with recombinant human Progranulin is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 333708
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 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.

ELISA Capture (Matched Antibody Pair) Optimal dilution of this antibody should be experimentally determined.

ELISA Detection (Matched Antibody Pair) 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: VXCX₅₋₆CX₅CCX₈CCX₆CCXD₂HCCPX₄CX₅₋₆CX₂ (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).

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.