

DESCRIPTION

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|---------------------------|---|
| 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 |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS. |

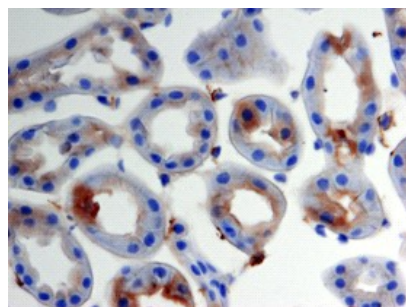
APPLICATIONS

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.

| | Recommended Concentration | Sample |
|-----------------------------|---------------------------|---|
| Western Blot | 1 µg/mL | Recombinant Mouse Progranulin (Catalog # 2557-PG) under non-reducing conditions only. We recommend (Catalog # AF2557) for Western blot applications. |
| Immunohistochemistry | 8-25 µg/mL | See Below |

DATA

Immunohistochemistry



Progranulin in Mouse Kidney.

Progranulin was detected in perfusion fixed frozen sections of mouse kidney using Rat Anti-Mouse Progranulin Monoclonal Antibody (Catalog # MAB25571) at 25 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Rat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS017) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

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|--------------------------------|--|
| Reconstitution | Reconstitute at 0.5 mg/mL in sterile PBS. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

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: VXCX₅₋₆CX₅CCX₈CCX₆CCDX₂HCCPX₄CX₅₋₆CX₂ (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).

References:

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