# SANTA CRUZ BIOTECHNOLOGY, INC.

# Aminopeptidase P (JG12): sc-65390



#### The Power to Question

#### BACKGROUND

Aminopeptidases are widely distributed in eukaryotes and prokaryotes. These enzymes catalyze the removal of amino acids from the N-termini of proteins. Aminopeptidase P is a member of the peptidase clan MG. It is a mammalian bradykinin-degrading, metal-dependant enzyme that exists in two forms: a membrane-bound form and a cytosolic form. Aminopeptidase P is proline-specific; it cleaves the N-terminal amino acid where the second residue is proline. Aminopeptidase P is GPI-linked, and the membrane-bound form is expressed on the surface of lymphoid cells, on vascular endothelial cells in various tissues, and on the brush-border membrane in kidney tubules and in the intestine. Cytosolic Aminopeptidase P is 623 amino acids in length. Membrane-bound Aminopeptidase P is also the receptor for the breast-homing peptide. This information may be very useful in designing drugs for the treatment and prevention of breast cancer.

# REFERENCES

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- Essler, M., et al. 2002. Molecular specialization of breast vasculature: a breast-homing phage-displayed peptide binds to Aminopeptidase P in breast vasculature. Proc. Natl. Acad. Sci. USA 99: 2252-2257.
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- Kiraly, O., et al. 2006. Expression of human cationic trypsinogen with an authentic N-terminus using intein-mediated splicing in Aminopeptidase P deficient *Escherichia coli*. Protein Expr. Purif. 48: 104-111.
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#### SOURCE

Aminopeptidase P (JG12) is a mouse monoclonal antibody raised against glomerular membrane protein fractions of rat origin.

# **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

# PRODUCT

Each vial contains 100  $\mu g~lg G_1$  in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

#### **APPLICATIONS**

Aminopeptidase P (JG12) is recommended for detection of epithelial Aminopeptidase P of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of Aminopeptidase P: 70 kDa.

### **SELECT PRODUCT CITATIONS**

- Sun, D., et al. 2011. Protective effect of prostaglandin E1 on renal microvascular injury in rats of acute aristolochic acid nephropathy. Ren. Fail. 33: 225-232.
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- Maïga, S., et al. 2017. Renal auto-transplantation promotes cortical microvascular network remodeling in a preclinical porcine model. PLoS ONE 12: e0181067.
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# **STORAGE**

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

# PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.