## SANTA CRUZ BIOTECHNOLOGY, INC.

# Aminopeptidase B-L1 (K-12): sc-137285



#### BACKGROUND

Aminopeptidase B-L1 (arginyl aminopeptidase (aminopeptidase B)-like 1), also known as RNPEPL1, APB or arginine aminopeptidase, is a 494 amino acid protein that belongs to the M1 family and shares 49% identity with Aminopeptidase B. Encoded by a gene that maps to human chromosome 2q37.3, Aminopeptidase B-L1 contains 11 exons and is ubiquitously expressed, with higher levels in heart and skeletal muscle. Aminopeptidase B-L1 participates in inositol and phosphatidylinositol kinase activities, zinc ion binding and metallopeptidase activity. Aminopeptidase B-L1 is inhibited by calcium ions but is unaltered by chloride ions. Exhibiting broad specificity, Aminopeptidase B-L1 displays a preference for a P1 methionine, glutamine or citrulline residue, and employs a wide pH range, with its optimum between 6.6 and 8.0.

#### REFERENCES

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- 2. Horikawa, Y., et al. 2000. Genetic variation in the gene encoding calpain-10 is associated with type 2 diabetes mellitus. Nat. Genet. 26: 163-175.
- 3. Hayes, M.G., et al. 2005. Patterns of linkage disequilibrium in the type 2 diabetes gene calpain-10. Diabetes 54: 3573-3576.
- 4. Iwasaki, N., et al. 2005. Genetic variants in the calpain-10 gene and the development of type 2 diabetes in the Japanese population. J. Hum. Genet. 50: 92-98.
- 5. Falvella, F.S., et al. 2009. FGFR4 Gly388Arg polymorphism may affect the clinical stage of patients with lung cancer by modulating the transcriptional profile of normal lung. Int. J. Cancer 124: 2880-2885.
- 6. Manco, G. 2009. Carboxylesterases: a world with still words to say. Protein Pept. Lett. 16: 1135-1136.
- 7. Thompson, M.W., et al. 2009. Arginyl aminopeptidase-like 1 (RNPEPL1) is an alternatively processed aminopeptidase with specificity for methionine, glutamine, and citrulline residues. Protein Pept. Lett. 16: 1256-1266.
- 8. Du, D., et al. 2010. Microarray analysis of high-glucose diet-induced changes in mRNA expression in jejunums of C57BL/6J mice reveals impairment in digestion, absorption. Mol. Biol. Rep. 37: 1867-1874.

### CHROMOSOMAL LOCATION

Genetic locus: RNPEPL1 (human) mapping to 2g37.3; Rnpepl1 (mouse) mapping to 1 D.

#### SOURCE

Aminopeptidase B-L1 (K-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Aminopeptidase B-L1 of human origin.

#### **RESEARCH USE**

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

## PRODUCT

Each vial contains 200 µg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137285 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

Aminopeptidase B-L1 (K-12) is recommended for detection of Aminopeptidase B-L1 of mouse, rat and human 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Aminopeptidase B-L1 (K-12) is also recommended for detection of Aminopeptidase B-L1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Aminopeptidase B-L1 siRNA (h): sc-94953, Aminopeptidase B-L1 siRNA (m); sc-141045, Aminopeptidase B-L1 shRNA Plasmid (h): sc-94953-SH, Aminopeptidase B-L1 shRNA Plasmid (m): sc-141045-SH, Aminopeptidase B-L1 shRNA (h) Lentiviral Particles: sc-94953-V and Aminopeptidase B-L1 shRNA (m) Lentiviral Particles: sc-141045-V.

Molecular Weight of Aminopeptidase B-L1: 55 kDa.

# **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

#### **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 or our catalog for detailed protocols and support products.