# SANTA CRUZ BIOTECHNOLOGY, INC.

# AIM1L (N-16): sc-241795



The Power to Question

#### BACKGROUND

AIM1L (absent in melanoma 1-like), also known as CRYBG2 ( $\beta/\gamma$  crystallin domain-containing protein 2), is a 616 amino acid protein that participates in sugar binding. AIM1L contains ten  $\beta/\gamma$  crystallin 'Greek key' domains and one ricin B-type lectin domain. Associated with tumorigenesis, AIM1L is commonly down-regulated in colorectal amilial adenomatous polyposis (FAP) polyps, compared to normal colon tissue. AIM1L is encoded by a gene that maps to human chromosome 1p36.11. As the largest human chromosome, chromosome 1 makes up approximately 8% of the human genome and contains 260 million base pairs encoding 3,000 genes. Numerous diseases are linked to chromosome 1, notably the rare aging disease Hutchinson-Gilford progeria, which is associated with Lamin A. When defective, Lamin A can accumulate in nucleus, causing characteristic nuclear blebs. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinson's disease, Gaucher disease and Usher syndrome are also associated with chromosome 1. Aberrations in chromosome 1 exist in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

## REFERENCES

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- 2. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
- 3. Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. Anticancer Res. 26: 953-959.
- 4. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
- 5. McClintock, D., et al. 2006. Hutchinson-Gilford progeria mutant lamin A primarily targets human vascular cells as detected by an anti-Lamin A G608G antibody. Proc. Natl. Acad. Sci. USA 103: 2154-2159.
- Bowden, N.A., et al. 2007. Gene expression profiling in familial adenomatous polyposis adenomas and desmoid disease. Hered. Cancer Clin. Pract. 5: 79-96.
- 7. Jelinsky, S.A., et al. 2008. Molecular analysis of the vaginal response to estrogens in the ovariectomized rat and postmenopausal woman. BMC Med. Genomics 1: 27.
- Kirpich, I.A., et al. 2010. Integrated hepatic transcriptome and proteome analysis of mice with high-fat diet-induced nonalcoholic fatty liver disease. J. Nutr. Biochem. 22: 38-45.

#### CHROMOSOMAL LOCATION

Genetic locus: AIM1L (human) mapping to 1p36.11; Aim1I (mouse) mapping to 4 D3.

## SOURCE

AIM1L (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of AIM1L of human origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-241795 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

AIM1L (N-16) is recommended for detection of AIM1L 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); non cross-reactive with AIM1 or AIM2.

AIM1L (N-16) is also recommended for detection of AIM1L in additional species, including bovine.

Suitable for use as control antibody for AIM1L siRNA (h): sc-78904, AIM1L siRNA (m): sc-140967, AIM1L shRNA Plasmid (h): sc-78904-SH, AIM1L shRNA Plasmid (m): sc-140967-SH, AIM1L shRNA (h) Lentiviral Particles: sc-78904-V and AIM1L shRNA (m) Lentiviral Particles: sc-140967-V.

Molecular Weight of AIM1L: 69 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™ 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) Immunofluo-rescence: use donkey anti-goat IgG-FITC: sc-2783 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ 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.

## **RESEARCH USE**

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

## PROTOCOLS

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