

AIM2 (K-12): sc-137970

BACKGROUND

Interferon-inducible protein AIM2 (absent in melanoma 2) is a 343 amino acid protein belonging to the HIN-200 family. Induced by IFN- γ , AIM2 is thought to act as a tumor suppressor by repressing NF κ B transcriptional activity. Localized to the nucleus, AIM2 contains one DAPIN domain and one HIN-200 domain. The DAPIN domain is composed mostly of α -helices and is a protein-protein interaction domain capable of binding other DAPIN domains. The HIN-200 domain has been shown to bind directly to DNA, which, along with the binding of another protein ASC, results in the activation of caspase-1. AIM2 is present as a homodimer and is expressed highly in small intestine, testis, peripheral blood leukocytes and spleen. Defects in AIM2 are believed to be a cause of microsatellite unstable colon cancers.

REFERENCES

- DeYoung, K.L., et al. 1997. Cloning a novel member of the human interferon-inducible gene family associated with control of tumorigenicity in a model of human melanoma. *Oncogene* 15: 453-457.
- Online Mendelian Inheritance in Man, OMIM[™]. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 604578. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Cresswell, K.S., et al. 2005. Biochemical and growth regulatory activities of the HIN-200 family member and putative tumor suppressor protein, AIM2. *Biochem. Biophys. Res. Commun.* 326: 417-424.
- Chen, I.F., et al. 2006. AIM2 suppresses human breast cancer cell proliferation *in vitro* and mammary tumor growth in a mouse model. *Cancer Ther.* 5: 1-7.
- Woerner, S.M., et al. 2007. The putative tumor suppressor AIM2 is frequently affected by different genetic alterations in microsatellite unstable colon cancers. *Genes Chromosomes Cancer* 46: 1080-1089.
- Fernandes-Alnemri, T., et al. 2009. AIM2 activates the inflammasome and cell death in response to cytoplasmic DNA. *Nature* 458: 509-513.

CHROMOSOMAL LOCATION

Genetic locus: AIM2 (human) mapping to 1q23.1.

SOURCE

AIM2 (K-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of AIM2 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137970 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

AIM2 (K-12) is recommended for detection of AIM2 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with AIM1 or AIM1L.

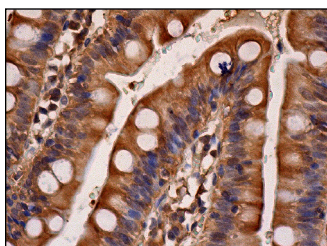
Suitable for use as control antibody for AIM2 siRNA (h): sc-88166, AIM2 shRNA Plasmid (h): sc-88166-SH and AIM2 shRNA (h) Lentiviral Particles: sc-88166-V.

Molecular Weight of AIM2: 39 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz[™]: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



AIM2 (K-12): sc-137970. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells.

RESEARCH USE

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

MONOS
Satisfaction
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Try **AIM2 (B-8): sc-515514** or **AIM2 (3C4G11): sc-293174**, our highly recommended monoclonal alternatives to AIM2 (K-12).