

AIM2 (D-14): sc-137967

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

1. 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.
2. 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/>

CHROMOSOMAL LOCATION

Genetic locus: Aim2 (mouse) mapping to 1 H3.

SOURCE

AIM2 (D-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of AIM2 of mouse 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-137967 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AIM2 (D-14) is recommended for detection of AIM2 of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (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 (m): sc-140968, AIM2 shRNA Plasmid (m): sc-140968-SH and AIM2 shRNA (m) Lentiviral Particles: sc-140968-V.

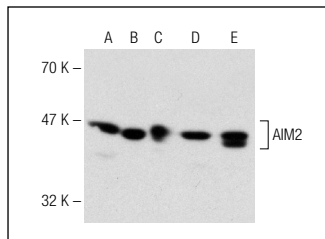
Molecular Weight of AIM2: 39 kDa.

Positive Controls: mouse spleen extract: sc-2391, RAW 264.7 whole cell lysate: sc-2211 or I-11.15 whole cell lysate: sc-364370.

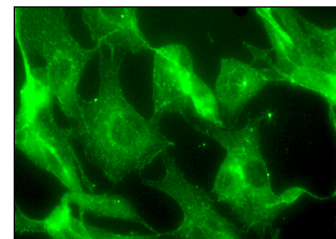
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



AIM2 (D-14): sc-137967. Western blot analysis of AIM2 expression in I-11.15 (A), mouse PBL (B), rat PBL (C) and RAW 264.7 (D) whole cell lysates and mouse spleen tissue extract (E).



AIM2 (D-14): sc-137967. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic and nuclear localization.

SELECT PRODUCT CITATIONS

1. Chen, G.Y., et al. 2012. Defective antiviral responses of induced pluripotent stem cells to baculoviral vector transduction. *J. Virol.* 86: 8041-8049.
2. Chai, D., et al. 2014. Mucosal co-immunization with AIM2 enhances protective SIgA response and increases prophylactic efficacy of chitosan-DNA vaccine against coxsackievirus B3-induced myocarditis. *Hum. Vaccin. Immunother.* 10: 1284-1294.

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.



Try **AIM2 (3C4G11): sc-293174**, our highly recommended monoclonal alternative to AIM2 (D-14).