SANTA CRUZ BIOTECHNOLOGY, INC.

MYADM (G-14): sc-131611

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Hematopoietic differentiation is an intricate process where multiple genes induce functional changes and various characteristics of different cell lineages. Identifying these genes is important in understanding lineage commitment and maturation of hematopoietic progenitor cells. MYADM (myeloid-associated differentiation marker), also known as SB135, is a novel hematopoietic-associated marker that is comprised of 322 amino acids and exists as a multi-pass membrane protein. Belonging to the MAL family of proteolipids, MYADM contains two highly conserved MARVEL domains and is widely expressed, except in thymus. Up-regulated during myeloid differentiation, MYADM is encoded by a gene located on human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes.

REFERENCES

1. Pettersson, M., et al. 2000. Isolation of MYADM, a novel hematopoietic-associated marker gene expressed in multipotent progenitor cells and upregulated during myeloid differentiation. J. Leukoc. Biol. 67: 423-431.
2. Cui, W., et al. 2001. Cloning of human myeloid-associated differentiation marker (MYADM) gene whose expression was up-regulated in NB4 cells induced by all-*trans* retinoic acid. Mol. Biol. Rep. 28: 123-138.
3. de Wit, N.J., et al. 2005. Analysis of differential gene expression in human melanocytic tumour lesions by custom made oligonucleotide arrays. Br. J. Cancer 92: 2249-2261.
4. Yagil, C., et al. 2005. Identification of hypertension-related genes through an integrated genomic-transcriptomic approach. Circ. Res. 96: 617-625.
5. Dannaeus, K., et al. 2005. Characterization of the mouse myeloid-associated differentiation marker (MYADM) gene: promoter analysis and protein localization. Mol. Biol. Rep. 32: 149-157.
6. Wang, Q., et al. 2007. Membrane protein hMYADM preferentially expressed in myeloid cells is up-regulated during differentiation of stem cells and myeloid leukemia cells. Life Sci. 80: 420-429.
7. Bracker, T.U., et al. 2009. Efficacy of MS-275, a selective inhibitor of class I histone deacetylases, in human colon cancer models. Int. J. Oncol. 35: 909-920.

CHROMOSOMAL LOCATION

Genetic locus: MYADM (human) mapping to 19q13.42; Myadm (mouse) mapping to 7 A1.

SOURCE

MYADM (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MYADM of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-131611 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MYADM (G-14) is recommended for detection of MYADM 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).

MYADM (G-14) is also recommended for detection of MYADM in additional species, including equine, canine and porcine.

Suitable for use as control antibody for MYADM siRNA (h): sc-97299, MYADM siRNA (m): sc-149728, MYADM shRNA Plasmid (h): sc-97299-SH, MYADM shRNA Plasmid (m): sc-149728-SH, MYADM shRNA (h) Lentiviral Particles: sc-97299-V and MYADM shRNA (m) Lentiviral Particles: sc-149728-V.

Molecular Weight of MYADM: 28 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) 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™ 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.