SANTA CRUZ BIOTECHNOLOGY, INC.

CD203c (1G11): sc-293363



BACKGROUND

Ecto-nucleotide pyrophosphatase/phosphodiesterase-I enzymes (E-NPP), a group of type II transmembrane proteins, cleave phosphodiester and phosphosulfate bonds in deoxynucleotides, NAD, and nucleotide sugars. There exist three closely related proteins in mammalian species: E-NPP1 (PC-1), E-NPP2 (PDNP2), and E-NPP-3, also known as CD203c, each expressed in different cells or at different locations in the same cells. Basophils, a type of major proinflammatory effector cells involved in diverse pathologic reactions, exhibit CD203c expression. For instance, CD203c expression increases in response to a variety of allergens, including cat dander, latex, and bee and wasp venom. Hovever, these allergies are not the only condition associated with CD203c upregulation; CD203c upregulation may also serve as a tumor marker for colon carcinoma.

REFERENCES

- Binder, M., et al. 2002. Individual hymenoptera venom compounds induce upregulation of the basophil activation marker ectonucleotide pyrophosphatase/phosphodiesterase 3 (CD203c) insensitized patients. Int. Arch. Allergy Immunol. 129: 160-168.
- Yano, Y., et al. 2003. Expression and localization of ecto-nucleotide pyrophosphatase/phosphodiesterase I-3 (E-NPP3/CD203c/PD-Iβ/B10/ gp130RB13-6) in human colon carcinoma. Int. J. Mol. Med. 12: 763-766.
- Majlesi, Y., et al. 2003. Cerivastatin and atorvastatin inhibit IL-3-dependent differentiation and IgE-mediated histamine release in human basophils and downmodulate expression of the basophil-activation antigen CD203c/E-NPP3. J. Leukoc. Biol. 73: 107-117.
- Gronlund, H., et al. 2003. Formation of disulfide bonds and homodimers of the major cat allergen Fel d 1 equivalent to the natural allergen by expression in *Escherichia coli*. J. Biol. Chem. 278: 40144-40151.
- Boumiza, R., et al. 2003. Marked improvement of the basophil activation test by detecting CD203c instead of CD63. Clin. Exp. Allergy 33: 259-265.

CHROMOSOMAL LOCATION

Genetic locus: ENPP3 (human) mapping to 6q23.2.

SOURCE

CD203c (1G11) is a mouse monoclonal antibody raised against amino acids 602-699 of CD203c of human origin.

PRODUCT

Each vial contains 100 μg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **D0 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.

APPLICATIONS

CD203c (1G11) is recommended for detection of CD203c of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD203c siRNA (h): sc-106764, CD203c shRNA Plasmid (h): sc-106764-SH and CD203c shRNA (h) Lentiviral Particles: sc-106764-V.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



CD203c (1G11): sc-293363. Western blot analysis of human recombinant CD203c fusion protein.

PROTOCOLS

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