

# CD203c (C-19): sc-27806

## 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. However, these allergies are not the only condition associated with CD203c upregulation; CD203c upregulation may also serve as a tumor marker for colon carcinoma.

## REFERENCES

1. Binder, M., et al. 2002. Individual hymenoptera venom compounds induce upregulation of the basophil activation marker ectonucleotide pyrophosphatase/phosphodiesterase 3 (CD203c) in sensitized patients. *Int. Arch. Allergy Immunol.* 129: 160-168.
2. Yano, Y., et al. 2003. Expression and localization of ecto-nucleotide-pyrophosphatase/phosphodiesterase I-3 (E-NPP3/CD203c/PD-I  $\beta$ /B10/gp130RB13-6) in human colon carcinoma. *Int. J. Mol. Med.* 12: 763-766.
3. 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.
4. 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: 40144-1451.
5. 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; Enpp3 (mouse) mapping to 10 A4.

## SOURCE

CD203c (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of CD203c of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-27806 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

CD203c (C-19) is recommended for detection of CD203c 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

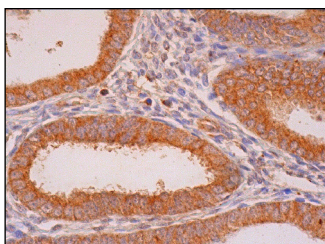
CD203c (C-19) is also recommended for detection of CD203c in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CD203c siRNA (h): sc-106764, CD203c siRNA (m): sc-142185, CD203c shRNA Plasmid (h): sc-106764-SH, CD203c shRNA Plasmid (m): sc-142185-SH, CD203c shRNA (h) Lentiviral Particles: sc-106764-V and CD203c shRNA (m) Lentiviral Particles: sc-142185-V.

## 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



CD203c (C-19): sc-27806. Immunoperoxidase staining of formalin fixed, paraffin-embedded human premenopausal uterus tissue showing cytoplasmic staining of glandular cells and cells in endometrial stroma.

## RESEARCH USE

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

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Try **CD203c (1G11): sc-293363**, our highly recommended monoclonal alternative to CD203c (C-19).