Anti- Human CD203c (NP4D6)

PE	203CPE-100T	100 test	RUO

1. PRODUCT DESCRIPTION

Clone: NP4D6

Isotype: Mouse / IgG1, kappa

Tested application: flow cytometry

Immunogen: Human CD203c Transfected Cell Line

Species reactivity: Human

Storage instruction: store in the dark at 2-8 °C

Storage buffer: aqueous buffered solution containing protein stabilizer and 0.09% sodium azide (NaN_3).

Recommended usage: Immunostep's CD203c, clone NP4D6, is a monoclonal antibody intended for the identification and analysis of human basophils and mast cells expressing the CD203c antigen using flow cytometry. CD203c is a type II transmembrane ectoenzyme upregulated upon cell activation, making this antibody a valuable tool for studying allergic responses, basophil activation, and mast cell-related disorders. This antibody is designed for use in flow cytometry. This reagent is effective for direct immunofluorescence staining of human tissue for flow cytometric analysis using 1 test for 10 6 cells.

Presentation: liquid

Source: Supernatant proceeding from an in vitro cell culture of a cell hybridoma.

Purification: Affinity chromatography.

2. ANTIGEN DETAILS

Large description: The monoclonal antibody NP4D6 specifically binds to CD203c, also known as ectonucleotide pyrophosphatase/phosphodiesterase [3] (E-NPP3 or ENPP3), a type II transmembrane glycoprotein and member of the ectoenzyme family. CD203c is involved in the hydrolysis of extracellular nucleotides, including nucleoside triphosphates, diphosphates, cAMP, and NAD, and exhibits both ATPase and ATP pyrophosphatase activity [1] .

CD203c is expressed on basophils and mast cells, with particularly high expression on activated basophils. Upon stimulation with allergens or IgE cross-linking, CD203c is rapidly upregulated, making it a reliable marker for basophil activation and a valuable tool in the diagnosis and monitoring of type I allergic responses [1] . This upregulation has also been observed in neoplastic mast cells in systemic mastocytosis [2].

Beyond its role in allergy diagnostics, CD203c expression has been detected in secretory endometrial glands and glioma cells, suggesting broader biological relevance [3]. Flow cytometric analysis using clone NP4D6 has been widely applied in both clinical and research settings to evaluate basophil activation in response to specific allergens, including hymenoptera venom components [1] . This makes CD203c a critical marker in immunology, particularly in the fields of allergy, mast cell disorders, and immune cell phenotyping [2] .

Other Names: E-NPP3, ENPP3

Gene ID: 5169

UniProt ID: O14638

Molecular weight: The molecular weight of CD203c ranges from 130 to 150 kDa under reducing conditions and approximately 270 kDa under non-reducing conditions.

For research use only, not for diagnostic procedures.

Please, refer to www.immunostep.com technical support for more information.

3. WARRANTY

Warranted only to conform to the quantity and contents stated on the label or in the product labelling at the time of delivery to the customer. Immunostep disclaims hereby other warranties.

Immunostep's sole liability is limited to either thereplacement of the products or refund of the purchase price.

4. REFERENCES

1. Buhring HJ, Streble A, Valent P. The basophil-specific ectoenzyme E-NPP3 (CD203c) as a marker for cell activation and allergy diagnosis. Int Arch Allergy Immunol. 2004; 133(4):317-329.

2. Füreder W, Schernthaner GH, Ghannadan M, Hauswirth A, Sperr WR, Semper H, Majlesi Y, Zwirner J, Götze O, Bühring HJ, Lechner K, Valent P. Quantitative, phenotypic, and functional evaluation of basophils in myelodysplastic syndromes. Eur J Clin Invest. 2001 Oct;31(10):894-901. doi: 10.1046/j.1365- 2362.2001.00887.x. PMID: 11737228.

3. Shields MO, Mirakhur RK, Crockard AD, Edgar JD. The use of basophil activation to diagnose allergy to Gelofusine. Anaesthesia. 2006 Jul;61(7):716-7; author reply 717-8. doi: 10.1111/j.1365-2044.2006.04690_1.x. PMID: 16792624.

5. EXPLANATION OF SYMBOLS

	Form
REF	Catalog reference
Σ	Contains sufficient for <n> test
	Quantity per test
	Regulatory Status
RUO	Research Use Only
	Manufacturer

6. MANUFACTURED BY:

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