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30-2852: Anti-Human CD294 PE MAb (Clone :BM16)

Clonality :	Monoclonal
Clone Name :	BM16
Application :	FACS
Reactivity :	Human
Conjugate :	PE
Gene :	PTGDR2
Gene ID :	11251
Uniprot ID :	Q9Y5Y4
Alternative Name :	DP2, PTGDR2, DL1R, CRTH2, GPR44
Isotype :	Rat IgG2a
Immunogen Information :	Human CD294 transfected rat cell line TART/B19-12.10

Description

Specificity: The rat monoclonal antibody BM16 recognizes an extracellular epitope of CD294 / CRTH2 (prostaglandin D2 receptor 2), a G-protein-coupled seven-transmembrane protein expressed on Th2 cells, peripheral blood basophils and eosinophils.

CD294 (prostaglandin D2 receptor 2) is a G-protein-coupled receptor that is preferentially expressed in CD4+ effector T helper 2 (Th2) cells, but also on eosinophils and basophils. It mediates the pro-inflammatory chemotaxis of eosinophils, basophils, and Th2 lymphocytes generated during allergic inflammation. Single nucleotide polymorphisms in the 3' UTR of CD294 gene have been associated with asthma susceptibility. Outside the immune system CD294 is expressed e.g. in gut, heart, and brain. The intracellular C terminal tail contains sites for phosphorylation by protein kinase C.

Product Info

Amount :	100 tests
Purification :	Purified antibody is conjugated with R-phycoerythrin (PE) under optimum conditions. Unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.
Content :	Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Storage condition :	Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze.

Application Note

Flow cytometry: The reagent is designed for analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.

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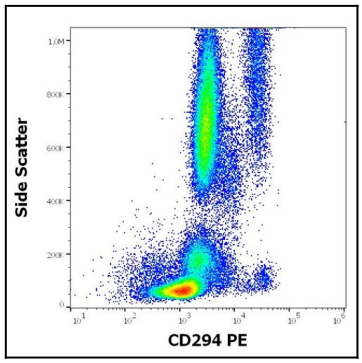

Figure 1: Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD294 (BM16) PE antibody (10 Î¼l reagent / 100 Î¼l of peripheral whole blood).

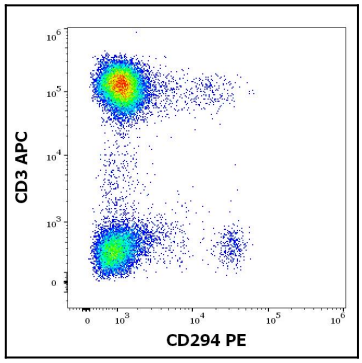

Figure 2: Flow cytometry multicolor surface staining of human gated lymphocytes and basophils stained using anti-human CD3 (UCHT1) APC antibody (10 Î¼l reagent / 100 Î¼l of peripheral whole blood) and anti-human CD294 (BM16) PE antibody (10 Î¼l reagent / 100 Î¼l of peripheral whole blood).

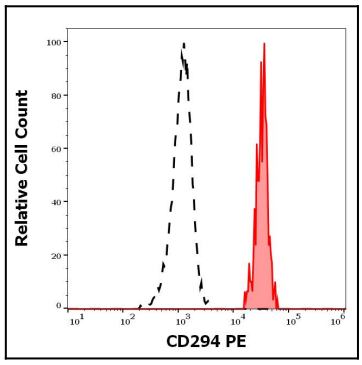

Figure 3: Separation of human CD294 positive basophils (red-filled) from CD3 positive CD294 negative T cells (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD294 (BM16) PE antibody (10 Î¼l reagent / 100 Î¼l of peripheral whole blood).