

## anti-Human CD294 Antibody | anti-CD294 antibody

Anti-Hu CD294 APC

|                               |                            |                                                         |
|-------------------------------|----------------------------|---------------------------------------------------------|
| CATALOG #<br><b>AAA129273</b> | REACTIVITY<br><b>Human</b> | APPLICATIONS<br><b>Flow Cytometry, Functional Assay</b> |
|-------------------------------|----------------------------|---------------------------------------------------------|

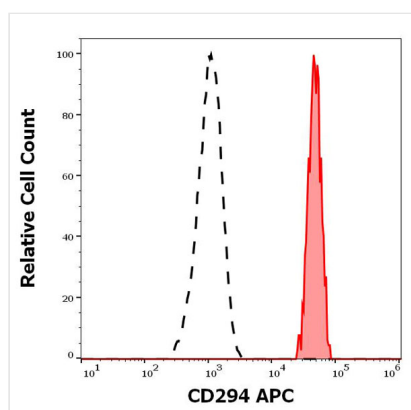
### PRODUCT SYNONYMS

CD294; Anti-Hu CD294 APC; prostaglandin D2 receptor 2; DP2; PTGDR2; DL1R; CRTH2; GPR44; anti-CD294 antibody

### PRODUCT SPECIFICATIONS

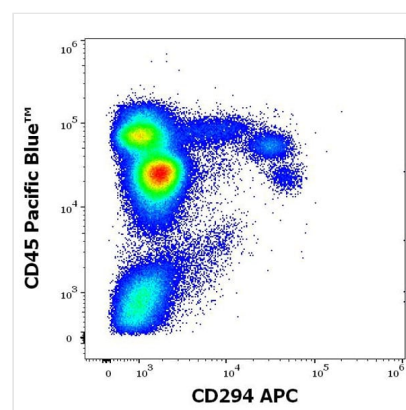
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|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity                                      | Human                                                                                                                                                                                                                                                           |
| Isotype                                         | Rat IgG2a                                                                                                                                                                                                                                                       |
| Clone Number                                    | BM16                                                                                                                                                                                                                                                            |
| 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.                          |
| Form/Format                                     | APC<br>Purified antibody is conjugated with activated allophycocyanin (APC) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.<br>Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 m |
| Applicable Applications for anti-CD294 antibody | FCM/FACS (Flow Cytometry)                                                                                                                                                                                                                                       |
| Immunogen                                       | Human CD294 transfected rat cell line TART/B19-12.10                                                                                                                                                                                                            |
| Preparation and Storage                         | Store at 2-8 degree C. Protect from prolonged exposure to light. Do not freeze.                                                                                                                                                                                 |

### IMAGES



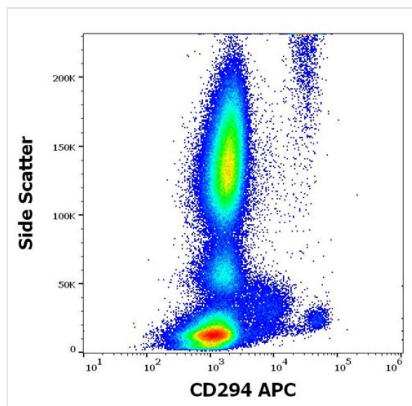
#### FCM/FACS (Flow Cytometry)

Separation of human basophil granulocytes (red-filled) from CD294 negative lymphocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD294 (BM16) APC antibody (10  $\mu$ l reagent / 100  $\mu$ l of peripheral whole blood).



#### FCM/FACS (Flow Cytometry)

Flow cytometry multicolor surface staining pattern of human blood sample using anti-human CD294 (BM16) APC antibody (10  $\mu$ l reagent / 100  $\mu$ l of peripheral whole blood) and anti-human CD45 (MEM-28) Pacific Blue™ antibody (4  $\mu$ l reagent / 100  $\mu$ l of peripheral whole blood).



#### FCM/FACS (Flow Cytometry)

Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD294 (BM16) APC antibody (10 µl reagent / 100 µl of peripheral whole blood).

### ADDITIONAL INFORMATION

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|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for anti-CD294 antibody</b> | <p>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.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>References</b>                                          | <p>*De Fanis U, Mori F, Kurnat RJ, Lee WK, Bova M, Adkinson NF, Casolaro V: GATA3 up-regulation associated with surface expression of CD294/CRTH2: a unique feature of human Th cells. GATA3 up-regulation associated with surface expression of CD294/CRTH2: a unique feature of human Th cells. Blood. 2007 May 15;109(10):4343-50. Epub 2007 Jan 18., URL: <a href="https://pubmed.ncbi.nlm.nih.gov/17234745/">https://pubmed.ncbi.nlm.nih.gov/17234745/</a>, *Mjösberg J, Bernink J, Golebski K, Karrich JJ, Peters CP, Blom B, te Velde AA, Fokkens WJ, van Drunen CM, Spits H: The transcription factor GATA3 is essential for the function of human type 2 innate lymphoid cells. Immunity. 2012 Oct 19;37(4):649-59., URL: <a href="https://pubmed.ncbi.nlm.nih.gov/23063330/">https://pubmed.ncbi.nlm.nih.gov/23063330/</a>, *Bellinghausen I, Reuter S, Martin H, Maxeiner J, Luxemburger U, Türeci Ö, Grabbe S, Taube C, Saloga J: Enhanced production of CCL18 by tolerogenic dendritic cells is associated with inhibition of allergic airway reactivity. J Allergy Clin Immunol. 2012 Dec;130(6):1384-93., URL: <a href="http://www.ncbi.nlm.nih.gov/pubmed/23102918">http://www.ncbi.nlm.nih.gov/pubmed/23102918</a>, *Nagata K, Tanaka K, Ogawa K, Kemmotsu K, Imai T, Yoshie O, Abe H, Tada K, Nakamura M, Sugamura K, Takano S: Selective expression of a novel surface molecule by human Th2 cells in vivo. J Immunol. 1999 Feb 1;162(3):1278-86., URL: <a href="http://www.ncbi.nlm.nih.gov/pubmed/9973380">http://www.ncbi.nlm.nih.gov/pubmed/9973380</a>,</p> |

### NCBI AND UNIPROT INFORMATION

|                                  |                                          |
|----------------------------------|------------------------------------------|
| NCBI GI #                        | 153791424                                |
| NCBI GeneID                      | 11251                                    |
| NCBI Accession #                 | NP_004769                                |
| NCBI GenBank Nucleotide #        | NM_004778.2                              |
| UniProt Accession #              | Q9Y5Y4; O94765; Q4QRI6                   |
| Molecular Weight                 | Predicted: 43, 55 kDa<br>Observed: 60kDa |
| NCBI Official Full Name          | prostaglandin D2 receptor 2              |
| NCBI Official Synonym Full Names | prostaglandin D2 receptor 2              |
| NCBI Official Symbol             | PTGDR2                                   |
| NCBI Official Synonym Symbols    | DP2; DL1R; CD294; CRTH2; GPR44           |

|                            |                                                                                                                                                                                                                                                                |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCBI Protein Information   | prostaglandin D2 receptor 2; G protein-coupled receptor 44; G-protein coupled receptor 44; putative G-protein coupled receptor 44; chemoattractant receptor-homologous molecule expressed on TH2 cells; chemoattractant receptor homologous molecule expressed |
| UniProt Protein Name       | Prostaglandin D2 receptor 2                                                                                                                                                                                                                                    |
| UniProt Gene Name          | <b>PTGDR2</b>                                                                                                                                                                                                                                                  |
| UniProt Synonym Gene Names | CRT2; DL1R; GPR44                                                                                                                                                                                                                                              |
| UniProt Entry Name         | PD2R2_HUMAN                                                                                                                                                                                                                                                    |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/human-antibody/cd294/129273>