

DP2 (V-16): sc-23092

BACKGROUND

The human chemoattractant receptor-homologous molecule (CRTH2, GPR44, G protein-coupled receptor 44) maps to chromosome 11q12.2 and encodes a 472-amino acid G protein-coupled leukocyte chemoattractant receptor. Chemoattractant receptors present on Th2 cells respond to parasites and play a central role in allergic inflammation and are absent on Type 1 T helper (Th1) cells, which address intracellular bacteria and many viruses. CRTH2 contains seven putative transmembrane domains and mediates signals to the interior of the cell upon exposure to its cognate ligand prostaglandin (PG)D₂, which is able to attract basophils, eosinophils, type 2 Th (Th2) cells and type 2 cytotoxic (Tc2) CD8⁺ T lymphocytes. CRTH2 expression on active Th2 cells influences supportive roles in Th2-type immune reactions. 3.5-kb CRTH2 transcripts are present in thalamus, frontal cortex, pons, hippocampus, hypothalamus and caudate, while 3.4-kb transcripts are present in fetal liver, leukocytes, and thymus.

REFERENCES

1. Marchese, A., et al. 1999. Discovery of three novel orphan G protein-coupled receptors. *Genomics* 56: 12-21.
2. Cosmi, L., et al. 2000. CRTH2 is the most reliable marker for the detection of circulating human type 2 Th and type 2 T cytotoxic cells in health and disease. *Eur. J. Immunol.* 30: 2972-2979.
3. Cosmi, L., et al. 2001. Chemoattractant receptors expressed on type 2 T cells and their role in disease. *Int. Arch. Allergy Immunol.* 125: 273-279.
4. Annunziato, F., et al. 2001. Reversal of human allergen-specific CRTH2⁺ T(H)2 cells by IL-12 or the PS-DSP30 oligodeoxynucleotide. *J. Allergy Clin. Immunol.* 108: 815-821.

CHROMOSOMAL LOCATION

Genetic locus: PTGDR2 (human) mapping to 11q12.2; Gpr44 (mouse) mapping to 19 A.

SOURCE

DP2 (V-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of DP2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23092 P, (100 µg 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.

RESEARCH USE

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

APPLICATIONS

DP2 (V-16) is recommended for detection of DP2 of human origin, CRTH2 of mouse origin and the corresponding rat homolog by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DP2 siRNA (h): sc-39838, CRTH2 siRNA (m): sc-77327, DP2 shRNA Plasmid (h): sc-39838-SH, CRTH2 shRNA Plasmid (m): sc-77327-SH, DP2 shRNA (h) Lentiviral Particles: sc-39838-V and CRTH2 shRNA (m) Lentiviral Particles: sc-77327-V.

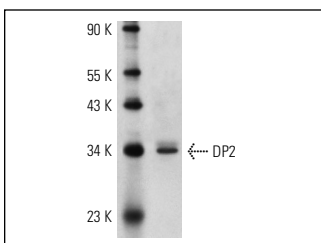
Molecular Weight of DP2: 35-40 kDa.

Positive Controls: Caki-1 whole cell lysate: sc-2224.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



DP2 (V-16): sc-23092. Western blot analysis of DP2 expression in Caki-1 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Sykes, L., et al. 2012. Chemoattractant receptor homologous to the T helper 2 cell (CRTH2) is not expressed in human amniocytes and myocytes. *PLoS ONE* 7: e50734.

MONOS
Satisfaction
Guaranteed

Try **DP2 (C-5): sc-271898** or **DP2 (BM16): sc-21798**, our highly recommended monoclonal alternatives to DP2 (V-16).