

# DP (N-14): sc-55817

## BACKGROUND

DP (prostanoid DP receptor or prostaglandin D2 receptor), also known as AS1 or ASRT1, is a member of the G protein-coupled receptor 1 family. It localizes to the cell membrane and is widely expressed, found in cells and tissues such as lung, platelets, nasal mucosa, small intestine and retina. DP functions as one of the two receptors for prostaglandin D2 (the other being CRTH2). Responses mediated by DP include mucin secretion, vasorelaxation via synthesis of intracellular cAMP, inhibition of platelet aggregation and the lowering of intraocular pressure. DP also plays an important role in eosinophil trafficking and may serve as a target protein in the treatment of allergic disease. Variations in the gene encoding DP are implicated in the susceptibility to asthma-related traits including symptoms such as wheezing, coughing and dyspnea.

## REFERENCES

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- Shiraishi, Y., et al. 2005. Prostaglandin D2-induced eosinophilic airway inflammation is mediated by CRTH2 receptor. *J. Pharmacol. Exp. Ther.* 312: 954-960.
- Kostenis, E. and Ulven, T. 2006. Emerging roles of DP and CRTH2 in allergic inflammation. *Trends Mol. Med.* 12: 148-158.
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## CHROMOSOMAL LOCATION

Genetic locus: PTGDR (human) mapping to 14q22.1.

## SOURCE

DP (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of DP of human 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-55817 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

DP (N-14) is recommended for detection of prostanoid DP receptor of human origin 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 DP siRNA (h): sc-62226, DP shRNA Plasmid (h): sc-62226-SH and DP shRNA (h) Lentiviral Particles: sc-62226-V.

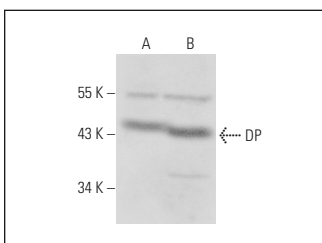
Molecular Weight of DP: 43 kDa.

Positive Controls: THP-1 cell lysate: sc-2238 or WI-38 whole cell lysate: sc-364260.

## 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



DP (N-14): sc-55817. Western blot analysis of DP expression in THP-1 (A) and WI-38 (B) whole cell lysates.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.