



## Anti-Prostaglandin D2 receptor (DP) (PTGDR), Rabbit-Polyclonal Antibody

**Catalog No.** GB-30096  
**Antigen species:** Human  
**Host species:** Rabbit

**Quantity:** 100 $\mu$ g  
**Reactivity:** Human  
**Form:** Peptide affinity purified antibody

**Applications:** ELISA

### Target description

The protein encoded by this gene is a G-protein-coupled receptor. It has been shown to function as a prostanoid DP receptor. The activity of this receptor is mainly mediated by G-S proteins that stimulate adenylate cyclase resulting in an elevation of intracellular cAMP and Ca<sup>2+</sup>. Knockout studies in mice suggest that the ligand of this receptor, prostaglandin D2 (PGD<sub>2</sub>), functions as a mast cell-derived mediator to trigger asthmatic responses.

### Antigen

This polyclonal antibody was raised by immunizing rabbit with a synthetic peptide GP96 of human prostaglandin D2 receptor (DP) (PTGDR).

### Application

The antibody titer is more than 100K for ELISA. It has not been tested in the other applications. However, for the first testing, we recommend 1/5,000 dilution for ELISA, 1/1000 dilution for Western blot analysis (WB) of recombinant protein, 1/400 dilution for tissue extracts or cell lysates, 1/100 dilution for immuno-histochemistry (IHC) staining on frozen cryosections, 1/50 dilution for IHC staining on paraffin embedded sections.

### Related Products

1. Anti-guanine nucleotide binding protein (G protein), q polypeptide (GNAQ), pAb (GB-30070)
2. Anti-luteinizing hormone/choriogonadotropin receptor (LHCGR), pAb (GB-30071)
3. Anti-adrenergic, beta-1-, receptor (ADRB1) pAb (GB-30072)
4. Anti-adrenergic, beta-2-, receptor, surface (ADRB2) pAb (GB-30073)
5. Anti-angiotensin II receptor, type 1 (AGTR1) pAb (GB-30074)

Ab dilution	Pre-bleed	Purified-Ab
1:10,000	0.083	1.133
1:100,000	0.064	0.226
1:1,000,000	0.059	0.076
Titer		437 K

Concentration of test purified pAb is 1mg/mL

### ELISA Protocol

Antigen is coated on EIA strips at 1 $\mu$ g per well. Add 200 $\mu$ l of blocking buffer and then wash wells with PBST buffer. Pre-bleed serum and peptide specific purified antibody GB-30096 is diluted in series as 10<sup>4</sup>~10<sup>6</sup> folds and added in separate wells. Incubate antibody for 1hr. Wash unbound antibodies and add anti-rabbit IgG-HRP conjugate. Wash the plates and add substrate to develop color for 5 min. Read absorbance (ABS) at 650 nm. Amount of color is directly proportional to the amount of antibodies. Antibody titer is defined as >0.1 of ABS of antiserum minus pre-bleed serum.

### Storage

It is supplied as peptide affinity purified antibody in lyophilized powder. Redissolve the powder with 100 microliter sterile water will restore to the original concentration 1mg/ml (1 $\times$ PBS). Store at 4 $^{\circ}$ C for short-term application. For long-term storage, aliquot and store at -20 $^{\circ}$ C.

### References

1. Angeli, V., Staumont, D., Charbonnier, A.S., Hammad, H., Gosset, P., Pichavant, M., Lambrecht, B.N., Capron, M., Dombrowicz, D. and Trottein, F. Activation of the D prostanoid receptor 1 regulates immune and skin allergic responses. *J. Immunol.* 172 (6), 3822-3829 (2004)
2. Iwasaki, M., Nagata, K., Takano, S., Takahashi, K., Ishii, N. and Ikezawa, Z. Association of a new-type prostaglandin D2 receptor CRTH2 with circulating T helper 2 cells in patients with atopic dermatitis. *J. Invest. Dermatol.* 119 (3), 609-616 (2002)

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