

PRODUCT INFORMATION



CRTH2/DP₂ Receptor (N-Term) Blocking Peptide

Item No. 10004884

Overview and Properties

Contents: This vial contains 200 µg of peptide.
Storage: -20°C (as supplied)
Stability: ≥3 years

Description

Prostaglandin D₂ (PGD₂) elicits its biological function through interaction with two distinct G protein-coupled receptors, DP₁ and CRTH2/DP₂. CRTH2 primarily couples to G_i or G_q subunits to mobilize Ca²⁺, induce cell migration, and up-regulate adhesion molecules.¹ CRTH2 mRNA has been detected in various tissues including liver, lung, kidney, brain, heart, thymus, and spleen and in various cell lineages including both hematopoietic and non-hematopoietic cell lines.² Human CRTH2 is 395 amino acids in length with an estimated molecular weight of 43 kDa. Cayman's CRTH2/DP₂ receptor (N-Term) polyclonal antibody can be used for western blot and immunohistochemical analysis of CRTH2 on samples of human, bovine, murine, and rat origin. It detects both unglycosylated and glycosylated protein at sizes ranging from 35-40 kDa to 50-70 kDa.³

Procedures

This vial contains 200 µg peptide in 200 µl TBS, pH 7.4, containing 0.1% BSA and 0.02% sodium azide. The CRTH2/DP₂ receptor (N-Term) blocking peptide (human CRTH2 amino acids 2-21) can be used in conjunction with Cayman's CRTH2/DP₂ Receptor (N-Term) Polyclonal Antibody (Item No. 10004886) to block protein-antibody complex formation during immunochemical analysis of CRTH2.

To block antibody/protein complex formation, the following procedure is recommended:

1. Mix the CRTH2/DP₂ Receptor (N-Term) Polyclonal Antibody (Item No. 10004886) and blocking peptide together in a 1:1 (v/v) ratio in a microfuge tube. For example, mix 20 µl of antibody and 20 µl of peptide.*
2. Incubate for one hour at room temperature with occasional mixing prior to further dilution and application of the mixture to the immunoblot.
3. Dilute the mixture to the final working antibody concentration and apply to the slide or membrane as usual.

*This is a recommended mixture. The minimum amount of peptide needed for complete blocking has not been precisely determined and may vary depending on the sample being analyzed. The amount of peptide required may need to be increased if sufficient blocking does not occur.

References

1. Nagata, K. and Hirai, H. The second PGD₂ receptor CRTH2: Structure, properties, and functions in leukocytes. *Prostaglandins Leukot. Essent. Fatty Acids* **69**, 169-177 (2003).
2. Abe, H., Takeshita, T., Nagata, K., *et al.* Molecular cloning, chromosome mapping and characterization of the mouse CRTH2 gene, a putative member of the leukocyte chemoattractant receptor family. *Gene* **227**, 71-77 (1999).
3. Nagata, K., Tanaka, K., Ogawa, K., *et al.* Selective expression of a novel surface molecule by human Th2 cells *in vivo*. *J. Immunol.* **162**, 1278-1286 (1999).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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