

Product Information



5-OxoETE Receptor Blocking Peptide

Catalog No. 10006618

The 5-OxoETE receptor recognizes eicosatetraenoic acids and polyunsaturated fatty acids including 5-Oxo-6E,8Z,11Z,14Z-eicosatetraenoic acid (5-OxoETE), which is the most potent ligand.¹ 5-OxoETE is a potent stimulator of chemotaxis for eosinophils and neutrophils that mediates its action *via* a putative G-protein coupled receptor (GPCR).^{2,3} The receptor couples to G_{i/o} to inhibit cyclic AMP production and to mobilize intracellular calcium.^{2,3} Northern blot analysis reveals that the receptor is highly expressed on eosinophils and neutrophils, suggesting a key role in the inflammatory response.³ In addition, the protein can also be detected in tissues such as kidney and liver.^{2,3}

Laboratory Procedures

This vial contains 200 µg peptide in 200 µl TBS, pH 7.4, containing 0.1% BSA and 0.02% sodium azide. The 5-OxoETE blocking peptide (Human 5-OxoETE receptor amino acids 408-423) can be used in conjunction with Cayman's 5-OxoETE Receptor Polyclonal Antibody (Catalog No. 100025) to block protein-antibody complex formation during immunochemical analysis of the 5-OxoETE receptor.

Reconstitute the lyophilized peptide with 200 µl of PBS or distilled water. Store this peptide solution at -20°C. It will be stable for at least two years. To block antibody/protein complex formation, the following procedure is recommended:

1. Mix the 5-OxoETE Receptor Polyclonal Antibody (Catalog No. 100025) and blocking peptide together in a 2:1 (v/v) ratio in a microfuge tube. For example, mix 80 µl of antibody and 40 µl of peptide.*
2. Incubate for 1 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. Im, D.-S. Discovery of new G protein-coupled receptors for lipid mediators. *J. Lipid Res.* **45**, 410-418 (2004).
2. Hosoi, T., Koguchi, Y., Sugikawa, E., *et al.* Identification of a novel human eicosanoid receptor coupled to G_{i/o}. *J. Biol. Chem.* **277(35)**, 31459-31465 (2002).
3. Jones, C.E., Holden, S., Tenaillon, L., *et al.* Expression and characterization of a 5-oxo-6E,8Z,11Z,14Z-eicosatetraenoic acid receptor highly expressed on human eosinophils and neutrophils. *Mol. Pharmacol.* **63(3)**, 471-477 (2003).

Related Product

5-OxoETE Receptor Polyclonal Antibody - Cat. No. 100025

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WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

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