

Product Information



EP₄ Receptor (N-term) Polyclonal Antiserum

Item No. 101770 • Lot No. XXXXXX

Contents:	This vial contains antiserum lyophilized from <i>lot specific</i> µl.
Host:	Rabbit
Antigen:	Synthetic peptide from the human EP ₄ receptor amino acids 1-22 (MSTPGVNSSASLSPDRLNSPVT) conjugated to KLH. ¹⁻⁴
Cross-reactivity:	(+) Human, ovine, murine, and rat EP ₄ receptor Homology of peptide antigen with EP ₄ receptor from other species: Human MSTPGVNSSASLSPDRLNSPVT Murine MSiPGVN a S f S s t P e RLNSPVT Chimpanzee MSTPGVN a S A S L S P D R L N S P V T Chacma Baboon MSTPGVN a S t S L S P D R L N S P V T Rabbit MSTP v a N a S A S s m P e l L N n P V T Canine MSTPG a N a S A S s t P D R p N S P V T
Stability:	≥2 years at -20°C
Applications:	Western blot at <i>lot specific:lot specific</i> dilution; other applications not tested

Laboratory Procedures

This vial contains lyophilized rabbit serum against a synthetic peptide from the human EP₄ receptor. For long term storage, we suggest the antiserum be stored as supplied at -20°C. It should be stable for at least two years. Reconstitute the contents of the vial with *lot specific* µl of distilled water containing 0.02% sodium azide and store at 4°C.

The biological effects of prostaglandin E₂ (PGE₂) are mediated through interaction with four distinct membrane-bound G protein-coupled EP receptors: EP₁, EP₂, EP₃, and EP₄.^{5,6} Binding of PGE₂ to the EP₄ receptor causes an increase in intracellular cAMP and subsequent relaxation of smooth muscle.¹⁻⁴ In addition to sequence differences, EP₄ receptors are distinguished from EP₂ receptors by their insensitivity to the EP₂ receptor selective agonist butaprost.^{4,8} The EP₄ receptor is expressed in multiple human tissues including kidney, small intestine, thymus, ileum, uterus, and lung, as well as in peripheral blood leukocytes.^{1,3} The receptor is also expressed in cultured human blood cell lines of monocytoid (U937 and THP-1) and lymphoid (MOLT-4, Jurkat, and Raji) origin.² EP₄ is detected on immunoblot at 65 or 52 kDa depending on the degree of post-translational modifications of that receptor.

References

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2. Mori, K., Tanaka, I., Kotani, M., *et al. J. Mol. Med.* **74**, 333-336 (1996).
3. Bastien, L., Sawyer, N., Grygorczyk, R., *et al. J. Biol. Chem.* **269**, 11873-11877 (1994).
4. Nishigaki, N., Negishi, M., Honda, A., *et al. FEBS Lett.* **364**, 339-341 (1995).
5. Coleman, R.A., Eglen, R.M., Jones, R.L., *et al. IUPHAR Compendium* 1-12 (1997).
6. Narumiya, S., Sugimoto, Y., and Ushikubi, F. *Physiol. Rev.* **79**, 1193-1226 (1999).
7. Regan, J.W., Bailey, T.J., Pepperl, D.J., *et al. Mol. Pharmacol.* **46**, 213-220 (1994).

Related Products

EP₄ Receptor (C-Term) Polyclonal PE Antibody - Item No. 10479 • EP₁ Receptor Polyclonal Antibody - Item No. 101740 • EP₂ Receptor Polyclonal Antibody - Item No. 101750 • EP₃ Receptor Polyclonal Antibody - Item No. 101760 • EP₄ Receptor (C-Term) Polyclonal Antibody - Item No. 101775 • EP₄ Receptor (N-Term) Blocking Peptide - Item No. 101780

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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 *via* email to your institution.

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