

## FPR-NGII + $G_{i\alpha_2\beta_1\gamma_2}$

Formyl Peptide Receptor, non-glycosylated, + inhibitory G-protein  $G_{i\alpha_2\beta_1\gamma_2}$   
 human, recombinant, Sf9 insect cells

Cat. No.	Amount
PR-594	1 ml



For *in vitro* use only  
 Quality guaranteed for 12 months  
 Store at -80 °C

### Avoid freeze / thaw cycles

### Form

Membrane suspension. Supplied in 75 mM Tris-HCl, pH 7.4, 12.5 mM MgCl<sub>2</sub>, and 1 mM EDTA.

### Molecular Weight

38 + 40 + 36 kDa

### Description

The formyl peptide receptor (FPR) is expressed in neutrophils, couples to pertussis toxin (PTX)-sensitive G<sub>i</sub>-proteins and activates phospholipase C, chemotaxis and cytotoxic cell functions. The FPR, like most GPCRs, is a type IIIb membrane protein with an extracellular N-terminus without a signal sequence. Adding a signal sequence to the N-terminus serves to direct the membrane insertion of proteins cotranslationally and enhances the production of functional GPCR protein in insect cells.

The human formyl peptide receptor (FPR) is N-glycosylated and activates phagocytes via G<sub>i</sub>-proteins. The FPR possesses two potential N-glycosylation sites in the N-terminus (Asn4 and Asn10) and one potential N-glycosylation site in the second extracellular loop (Asn179).

FPR-NGII lacks the N-glycosylation sites at Asn4 and Asn10.

FPR-NGII reconstituted with the G-protein  $G_{i\alpha_2\beta_1\gamma_2}$  was prepared from Sf9 cells triple-infected with FPR-,  $G_{i\alpha_2}$ , and  $G_{\beta_1\gamma_2}$ -encoding baculoviruses. Compared to wildtype FPR (FPR-26) (cat.# PR-591), FPR-NGII is much less active in terms of high-affinity agonist binding and agonist-stimulated [<sup>35</sup>S]GTPγS binding.

FPR-NGII was constructed with a N-terminal FLAG-tag® and a C-terminal hexahistidine (His<sub>6</sub>)-tag for immunological detection and protection against proteolysis.

### Selected References:

- Wenzel-Seifert *et al.* (2003) Critical role of N-terminal N-glycosylation for proper folding of the human formyl peptide receptor. *Biochem. Biophys. Res. Commun.* **301**:693.
- Seifert *et al.* (2001) Defective G<sub>i</sub>-protein coupling in two formyl peptide receptor mutants associated with localized juvenile periodontitis. *J. Biol. Chem.* **276**:42043.
- Wenzel-Seifert *et al.* (1998) High constitutive activity of the human formyl peptide receptor. *J. Biol. Chem.* **273**:24181.
- Boulay *et al.* (1990) The human N-formylpeptide receptor. Characterization of two cDNA isolates and evidence for a new subfamily of G-protein-coupled receptors. *Biochemistry* **29**:11123.