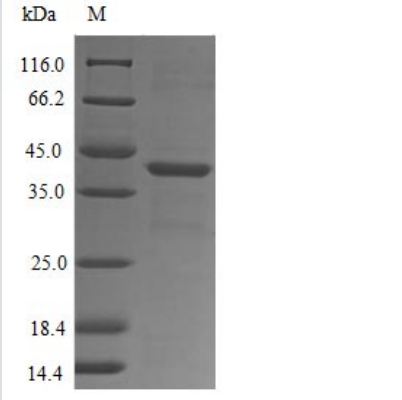
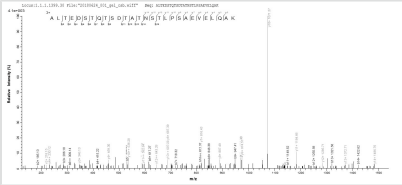
Recombinant Human fMet-Leu-Phe receptor (FPR1), partial

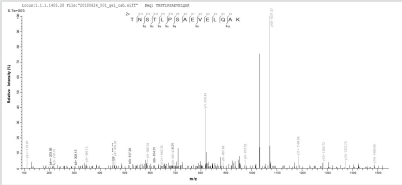
Product Code	CSB-EP008854HU1d1
Relevance	High affinity receptor for N-formyl-methionyl peptides (fMLP), which are powerful neutrophil chemotactic factors. Binding of fMLP to the receptor stimulates intracellular calcium mobilization and superoxide anion release. This response is mediated via a G-protein that activates a phosphatidylinositol-calcium second messenger system
Abbreviation	Recombinant Human FPR1 protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P21462
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	QDFRERLIHALPASLERALTEDSTQTSDTATNSTLPSAEVELQAK
Research Area	Immunology
Source	E.coli
Target Names	FPR1
Protein Names	N-formyl peptide receptor Short name: FPR N-formylpeptide chemoattractant receptor
Expression Region	306-350aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-GST-tagged and C-terminal Myc-tagged
Mol. Weight	34.9 kDa
Protein Length	Partial
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP008854HU1d1 could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) FPR1.



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Description

Amino acids 306-350 constitute the expression domain of recombinant Human FPR1. The expected molecular weight for the FPR1 protein is calculated to be 34.9 kDa. Expression of this FPR1 protein is conducted in e.coli. The FPR1 gene fragment has been modified by fusing the N-terminal 10xHis-GST tag and C-terminal Myc tag, providing convenience in detecting and purifying the recombinant FPR1 protein during the following stages.

The human fMet-Leu-Phe receptor (FPR1) is a GPCR primarily expressed on immune cells such as neutrophils and macrophages. FPR1 is crucial in mediating chemotaxis, phagocytosis, and inflammatory responses. It recognizes N-formylated peptides, which are often released by bacteria during infection. Upon ligand binding, FPR1 activates downstream signaling cascades, leading to cytoskeletal rearrangements, immune cell recruitment, and antimicrobial activities. FPR1's involvement in immune responses makes it a potential target for therapeutic interventions in infectious diseases and inflammatory disorders. Understanding its function provides insights into the regulation of immune cell behavior and offers avenues for developing novel immunomodulatory strategies.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

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