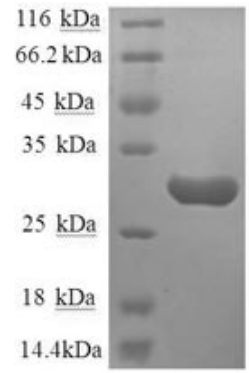
Recombinant Human Substance-P receptor (TACR1), partial

Product Code	CSB-EP023068HU
Relevance	This is a receptor for the tachykinin neuropeptide substance P. It is probably associated with G proteins that activate a phosphatidylinositol-calcium second messenger syst. The rank order of affinity of this receptor to tachykinins is: substance P > substance K > neuromedin-K.
Abbreviation	Recombinant Human TACR1 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.	P25103
Alias	NK-1 receptor ;NK-1RTachykinin receptor 1
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MDNVLPVDSDLSPNISTNTSEPNQFVQPA
Research Area	Neuroscience
Source	E.coli
Target Names	TACR1
Expression Region	1-29aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal GST-tagged
Mol. Weight	30.1kDa
Protein Length	partial
Image	



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

Description

Amino acids 1-29 form the expressed segment for recombinant Human TACR1. The theoretical molecular weight of the TACR1 protein is 30.1 kDa. Expression of this TACR1 protein is conducted in e.coli. The TACR1 coding gene included the N-terminal GST tag, which simplifies the detection and purification processes of the recombinant TACR1 protein in following stages of expression and purification.

The substance P receptor is officially known as the Tachykinin receptor 1 (TACR1) or neurokinin-1 receptor (NK1R). This receptor is a G protein-coupled receptor that binds specifically to substance P, a neuropeptide involved in neurotransmission, inflammation, and pain signaling. TACR1 is primarily expressed in the central and peripheral nervous systems and plays a crucial role in mediating the effects of substance P. Upon binding of substance P to TACR1, various intracellular signaling pathways are activated, leading to neurogenic inflammation, vasodilation, and modulation of pain perception. The TACR1 receptor is implicated in numerous physiological and pathological processes, making it a significant target for research in areas such as neuroscience, pain biology, and immunology. Understanding TACR1 function is crucial for developing therapeutic interventions related to pain management and inflammatory disorders.

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

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