PRODUCT INFORMATION

Target	TACR3
Synonyms	NK3R; NKR; TAC3R; Neuromedin-K receptor; Neurokinin B receptor
Description	Recombinant human TACR3 Protein with C-terminal human Fc tag
Delivery	In Stock
Uniprot ID	P29371
Expression Host	HEK293
Tag	C-Human Fc tag
Molecular Characterization	TACR3(Met1-Arg84) hFc(Glu99-Ala330)
Molecular Weight	The protein has a predicted molecular mass of 34.5 kDa after removal of the signal peptide.
Purity	The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.
Formulation & Reconstitution	Lyophilized from sterile PBS, pH 7.4. Normally 5 % – 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions of reconstitution.
Storage&Shipping	Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.
Background	TACR3 encodes the tachykinin receptor 3 (NK3 receptor), a G-protein coupled receptor (GPCR) that binds the neuropeptide neurokinin B (NKB). It primarily couples to Gq/11 proteins, activating phospholipase C (PLC), elevating intracellular Ca^{2+}, and stimulating downstream MAPK and PKC signaling pathways. TACR3 is expressed in the central nervous system, hypothalamus, and reproductive tissues, where it regulates neuroendocrine secretion, thermoregulation, and reproductive hormone release. Mutations in TACR3 are associated with hypogonadotropic hypogonadism and pubertal delay, while pharmacological modulation of NK3R has therapeutic potential in menopausal hot flashes, psychiatric disorders, and neuroendocrine dysfunctions.
Usage	Research use only
Conjugate	Unconjugated

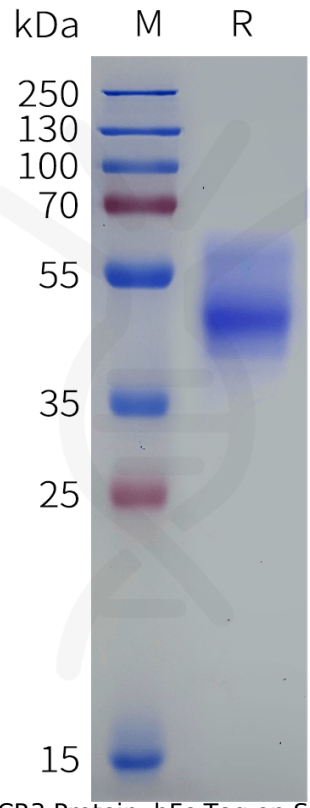

Figure 1. Human TACR3 Protein, hFc Tag on SDS-PAGE under reducing condition.