

## PRODUCT INFORMATION

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|---|---|
| <b>Target</b>                           | TACR3   |
| <b>Synonyms</b>                         | NK3R; NKR; TAC3R; Neuromedin-K receptor; Neurokinin B receptor  |
| <b>Description</b>                      | Recombinant human TACR3 Protein with C-terminal human Fc tag  |
| <b>Delivery</b>                         | In Stock  |
| <b>Uniprot ID</b>                       | P29371  |
| <b>Expression Host</b>                  | HEK293  |
| <b>Tag</b>                              | C-Human Fc tag  |
| <b>Molecular Characterization</b>       | TACR3(Met1-Arg84) hFc(Glu99-Ala330)   |
| <b>Molecular Weight</b>                 | The protein has a predicted molecular mass of 34.5 kDa after removal of the signal peptide.   |
| <b>Purity</b>                           | The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.  |
| <b>Formulation &amp; Reconstitution</b> | 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.  |
| <b>Storage&amp;Shipping</b>             | 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.   |
| <b>Background</b>                       | 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. |
| <b>Usage</b>                            | Research use only   |
| <b>Conjugate</b>                        | Unconjugated  |



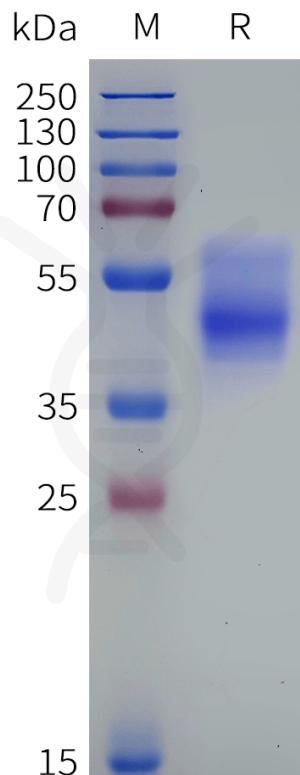


Figure 1. Human TACR3 Protein, hFc Tag on SDS-PAGE under reducing condition.

