



Recombinant Protein Technical Manual

Recombinant Mouse PRLR/Prolactin Receptor Protein (His & Fc Tag) RPES2098

Product Data:

Product SKU: RPES2098

Size: 50µg

Species: Mouse

Expression host: HEK293 Cells

Uniprot: NP_035299.4

Protein Information:

Molecular Mass: 52.5 kDa

AP Molecular Mass: 65-70 kDa

Tag: C-His-Fc

Bio-activity:

Purity: > 90 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Prolactin receptor; PRL-R; Prlr; Prolactin R; PRLR;Pr;Pr-3;Prlr;Prlr-rs1

Immunogen Information:

Sequence: Met 1-Asp 229

Background:

Prolactin receptor (PRLR) is a single-pass transmembrane receptor belonging to the type I cytokine receptor superfamily, and contains two fibronectin type-III domains. All class 1 ligands activate their respective receptors by clustering mechanisms. Ligand binding results in the transmembrane PRLR dimerization, followed by phosphorylation and activation of the molecules involved in the signaling pathways, such as Jak-STAT, Ras/Raf/MAPK. The PRLR contains no intrinsic tyrosine kinase cytoplasmic domain but associates with a cytoplasmic tyrosine kinase, JAK2. PRLR mainly serves as the receptor for the pituitary hormone prolactin (PRL), a secreted hormone that affects reproduction and homeostasis in vertebrates. PRLR can be regulated by an interplay of two different mechanisms, PRL or ovarian steroid hormones independently or in combination in a tissue-specific manner. The role of the hormone prolactin (PRL) in the pathogenesis of breast cancer is mediated by its cognate receptor (PRLR). Ubiquitin-dependent degradation of the PRLR that negatively regulates PRL signaling is triggered by PRL-mediated phosphorylation of PRLR on Ser349 followed by the recruitment of the beta-transducin repeats-containing protein (beta-TrCP) ubiquitin-protein isopeptidase ligase. which altered PRLR stability may directly influence the pathogenesis of breast cancer.