Recombinant RACK1 protein (His tag)

Catalog Number	542484
Synonyms	Cell proliferation-inducing gene 21 protein; Guanine nucleotide-binding protein subunit beta-2-like 1; Guanine nucleotide-binding protein subunit beta-like protein 12.3; Human lung cancer oncogene 7 protein; HLC-7; Receptor for activated C kinase; Receptor of activated protein C kinase 1; Guanine nucleotide-binding protein subunit beta-2-like 1, N-terminally processed; Receptor of activated protein C kinase 1, N-terminally processed
Species	Human
Expression System	E. coli
Accession	P63244
Molecular Weight	Predictes a molecular mass of 36.73 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

Product Information

Sequence Region	1-317
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-317 aa (P63244) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 µg/µl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human RACK1 Protein (residues 1-317) is a high-purity, stable fragment of the small ribosomal subunit protein RACK1, optimized for structural and biochemical studies. This scaffolding protein plays a critical role in signal transduction, ribosome quality control, and cellular processes such as proliferation and apoptosis, offering researchers a reliable tool for exploring its diverse molecular interactions. RACK1 (Receptor for Activated C Kinase 1) is a multifunctional scaffolding protein in Homo sapiens that recruits, assembles, and regulates various signaling molecules, including protein kinase C (PKC) and SRC kinases. It is a component of the 40S ribosomal subunit involved in translational repression and initiates ribosome quality control by promoting ubiquitination of stalled ribosomal subunits. RACK1 modulates processes such as cell cycle progression, apoptosis via BAX oligomerization, integrin signaling, and GPCR trafficking, and it localizes to the cell membrane, cytoplasm, perinuclear region, and other subcellular compartments. Its interactions with pathogens, like Yersinia pseudotuberculosis and HIV-1, highlight its role in infection responses, making it essential for studies in cell signaling, cancer, and virology.