Recombinant RIPK1 protein (His tag)

Catalog Number	544932
Synonyms	Cell death protein RIP; Receptor-interacting protein 1; RIP-1
Species	Human
Expression System	E. coli
Accession	Q13546
Molecular Weight	Predictes a molecular mass of 38.00 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 41 kDa band.

Product Information

Sequence Region	1-318
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-318 aa (Q13546) 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 RIPK1 Kinase Domain (residues 1-318) is a high-purity protein fragment encompassing the complete serine-threonine protein kinase domain of Receptor-interacting serine/threonine-protein kinase 1. This product provides researchers with a specialized tool for investigating RIPK1's central role in regulating cell death pathways and inflammatory signaling, enabling targeted studies of kinase-dependent mechanisms in apoptosis and necroptosis. Receptor-interacting serine/threonine-protein kinase 1 (RIPK1) is a crucial regulatory protein that functions as both a kinase and scaffold protein in multiple cellular pathways. As a key mediator of TNF signaling, RIPK1 plays dual roles in cell survival and death decisions - it promotes cell survival through NF-kappa-B pathway activation while also regulating apoptosis through complex IIa (RIPK1-FADD-CASP8) and necroptosis through complex IIb (RIPK1-RIPK3-MLKL). The protein exhibits reciprocal phosphorylation with RIPK3 and can activate apoptotic cascades through DAB2IP phosphorylation. RIPK1 is primarily localized in the cytoplasm and at the cell membrane, where it participates in critical signaling complexes that determine cellular fate in response to inflammatory stimuli and stress conditions.