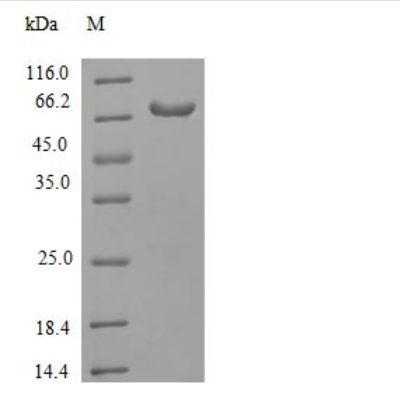
Recombinant Human Receptor-interacting serine/threonine-protein kinase 3 (RIPK3)

Product Code	CSB-EP897497HU
Relevance	Essential for necroptosis, a programmed cell death process in response to death-inducing TNF-alpha family members. Upon induction of necrosis, RIPK3 interacts with, and phosphorylates RIPK1 and MLKL to form a necrosis-inducing complex. RIPK3 binds to and enhances the activity of three metabolic enzymes: GLUL, GLUD1, and PYGL. These metabolic enzymes may eventually stimulate the tricarboxylic acid cycle and oxidative phosphorylation, which could result in enhanced ROS production.
Abbreviation	RIPK3
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q9Y572
Alias	RIP-like protein kinase 3 Receptor-interacting protein 3
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MSCVKLWPSGAPAPLVSIEELENQELVGKGGFGTVFRAQHRKWGYDVAVKIV NSKAISREVKAMASLDNEFVLRLEGVIEKVNWDQDPKPALVTKFMENGSLSGL LQSQCPRPWPLLCRLLKEVVLGMFYLHDQNPVLLHRDLKPSNVLLDPELHVKL ADFGLSTFQGGSQSGTGSGEPGGTLGYLAPELFVNVNRKASTASDVYSFGIL MWAVLAGREVELPTEPSLVYEAVCNRQNRPSLAELPQAGPETPGLEGLKELM QLCWSSEPKDRPSFQECLPKTDEVFQMVENNMNAAVSTVKDFLSQLRSSNR RFSIPESGQGGTEMDGFRRTIENQHSRNDVMVSEWLNKLNLEEPPSSVPKKC PSLTKRSRAQEEQVPQAWTAGTSSDSMAQPPQTPETSTFRNQMPSPTSTGT PSPGPRGNQGAERQGMNWSCRTPEPNPVTGRPLVNIYNCSGVQVGDNNYLT MQQTTALPTWGLAPSGKGRGLQHPPPVGSQEGPKDPEAWSRPQGWYNHS GK
Lead Time	3-7 business days
Research Area	Cell Biology
Source	E.coli
Gene Names	RIPK3
Protein Names	Recommended name: Receptor-interacting serine/threonine-protein kinase 3 EC= 2.7.11.1Alternative name(s): RIP-like protein kinase 3 Receptor-interacting protein 3 Short name= RIP-3
Expression Region	1-518aa

Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	72.9kDa
Protein Description	Full Length

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The region for expressing recombinant Human RIPK3 contains amino acids 1-518. The theoretical molecular weight of the RIPK3 protein is 72.9 kDa. This RIPK3 protein is produced using e.coli expression system. The N-terminal 6xHis-SUMO tag was fused into the coding gene segment of RIPK3, making it easier to detect and purify the RIPK3 recombinant protein in the later stages of expression and purification.

The human receptor-interacting serine/threonine-protein kinase 3 (RIPK3) is a member of the RIP kinase family and is involved in regulating programmed cell death, particularly necroptosis, a form of regulated necrosis. RIPK3 plays a crucial role in immune responses, inflammation, and tissue homeostasis. Upon activation, RIPK3 forms a complex with other proteins, leading to the phosphorylation of downstream effectors and ultimately triggering necroptosis. Additionally, RIPK3 has been implicated in other cellular processes, including the regulation of inflammatory signaling pathways. Research on RIPK3 aims to understand its intricate functions in cell death and inflammation, offering insights into potential therapeutic strategies for various diseases, including inflammatory disorders and certain cancers.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.