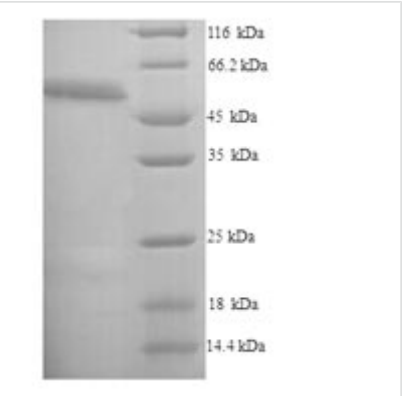
Recombinant Mouse Receptor-interacting serine/threonine-protein kinase 3 (Ripk3)

Product Code	CSB-YP886403MO
Relevance	Essential for necroptosis, a programmed cell death process in response to death-inducing TNF-alpha family mbers. 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	Recombinant Mouse Ripk3 protein
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.	Q9QZL0
Product Type	Recombinant Proteins
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MSSVKLWPTGASAVPLVSREELKKLEFVGKGGFGVVFRAHHRTWNHDVAVKI VNSKKISWEVKAMVNLRNENVLLLLGVTEDLQWDFVSGQALVTRFMENGSLA GLLQPECPRPWPLLCRLLQEVVLGMCYLHSLDPPLLHRDLKPSNILLDPELHAK LADFGLSTFQGGSQSGSGSGSGSRDSGGTLAYLDPELLFKVNLKASKASDVY SFGILVWAVLAGREAELVDKTSLIRETVCDRQSRPPLTELPPGSPETPGLEKLK ELMIHCWGSQSENRPSFQDCEPKTNEVYNLVKDKVDAAVSEVKHYLSQHRSS GRNLSAREPSQRGTEMDCPRETMVSKMLDRLHLEEPSGPVPGKCPERQAQD TSVGPATPARTSSDPVAGTPQIPHTLPFRGTTPGPVFTETPGPHPQRNQGDG RHGTPWYPWTPPNPMTGPPALVFNNCSEVQIGNYNSLVAPPRTTASSSAKYD QAQFGRGRGWQPFHK
Research Area	Others
Source	Yeast
Target 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 Short name= mRIP3
Expression Region	1-486aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged

Mol. Weight	54.8 kDa
Protein Length	Full Length

Image



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

Description

Intact mouse receptor-interacting serine/threonine-protein kinase 3(Ripk3) cDNA (1-486aa) with an N-terminal 6xHis-tag was expressed in the yeast. The forming protein is the recombinant full-length Human Ripk3 protein. The purity of this protein is greater than 90% determined by SDS-PAGE. Under reducing conditions, the SDS-PAGE showed a molecular weight band of about 56 kDa. The slightly higher molecular mass is attributed to glycosylation. Apart from generating anti-Ripk3 antibodies, this recombinant Ripk3 protein may find uses in the studies of necroptosis-activated pathologies.

Ripk3 is a key regulator of necroptosis, apoptosis, and inflammatory signaling. Ripk3 interacting with RIPK1 through RIP homotypic interaction motif (RHIM) forms a necrosome, facilitating the activation of MLKL that executes necroptosis by promoting plasma membrane permeabilization and cell rupture. It can also modulate apoptosis by activating the caspase-8-RIPK1 complex under certain conditions. Previous studies reported that Ropk3 can promote aerobic metabolism through phosphorylation of several metabolic enzymes. Xiaoru Duan etc. proposed that suppression of RIPK1/RIPK3/MLKL-mediated keratinocyte necroptosis protected against psoriatic inflammation.

Shelf Life

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