Recombinant CBLB protein (His tag)

Catalog Number	544902
Synonyms	Casitas B-lineage lymphoma proto-oncogene b; RING finger protein 56; RING-type E3 ubiquitin transferase CBL-B; SH3-binding protein CBL-B; Signal transduction protein CBL-B
Species	Human
Expression System	E. coli
Accession	Q13191
Molecular Weight	Predictes a molecular mass of 46.46 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 47 kDa band.

Product Information

Sequence Region	42-426
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 42-426 aa (Q13191) 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 E3 ubiquitin-protein ligase CBL-B fragment (residues 42-426), a highly stable and soluble protein unit ideal for structural studies and biochemical assays investigating ubiquitination pathways and immune signaling regulation. E3 ubiquitin-protein ligase CBL-B is a RING-type ubiquitin transferase that plays critical roles in negatively regulating key immune signaling pathways, including TCR, BCR, and FCER1-mediated signaling. This cytoplasmic enzyme accepts ubiquitin from specific E2 conjugating enzymes and transfers it to substrate proteins, typically targeting them for proteasomal degradation. In T-cells, CBL-B imposes CD28 costimulation requirements for activation and promotes anergy in activated cells, while in B-cells it ubiquitinates SYK to limit signaling. The protein also functions in feedback inhibition of growth factor receptors and may associate with endocytic vesicles upon stimulation. The selected fragment (42-426) represents a computationally optimized stable region suitable for investigating the molecular mechanisms of ubiquitin transfer and immune regulation.