Recombinant CBL protein (His tag)

Catalog Number	544490
Synonyms	Casitas B-lineage lymphoma proto-oncogene; Proto-oncogene c-Cbl; RING finger protein 55; RING-type E3 ubiquitin transferase CBL; Signal transduction protein CBL
Species	Human
Expression System	E. coli
Accession	P22681
Molecular Weight	Predictes a molecular mass of 46.16 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 46 kDa band.

Product Information

Sequence Region	50-434
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 50-434 aa (P22681) 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 CBL (E3 ubiquitin-protein ligase) Fragment (aa 50-434) is a high-purity, stable protein fragment ideal for studying ubiquitination mechanisms, signal transduction regulation, and targeted biochemical assays. This 385-amino acid fragment retains key structural features, offering researchers a reliable tool for investigating CBL's role in cellular signaling pathways. CBL (E3 ubiquitin-protein ligase) is a critical negative regulator of multiple signaling pathways by mediating ubiquitination of cell surface receptors and kinases, leading to their proteasomal degradation. It targets activated receptor tyrosine kinases including KIT, PDGFRA, EGFR, and SRC-family kinases, thereby terminating signaling cascades. CBL also participates in hematopoietic signal transduction, osteoblast differentiation, apoptosis regulation, and osteoclastic bone resorption. The protein localizes to the cytoplasm, cell membrane, lipid rafts, cilia, and Golgi apparatus, where it functionally interacts with E2 ubiquitin-conjugating enzymes. Its activity is essential for feedback inhibition in pathways such as PDGFRA signaling, and it plays roles in pathogen response mechanisms, as evidenced by its ubiquitination of NECTIN1 during herpes simplex virus infection.