

**DESCRIPTION**

**Source** *Spodoptera frugiperda*, Sf 21 (baculovirus)-derived human Cbl-B protein  
 Met1 - Leu982  
 Accession # Q13191.2

**Predicted Molecular Mass** 110 kDa

**SPECIFICATIONS**

**Activity** Typical concentration to support *in vitro* applications will depend on experimental design.

**Purity** >90%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.

**Formulation** Supplied as a solution in HEPES, NaCl, Glycerol and DTT. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

**Shipping** The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 6 months from date of receipt, -70 °C as supplied.
- 3 months, -70 °C under sterile conditions after opening.

**BACKGROUND**

Cbl-B (Casitas B-lineage lymphoma protooncogene b, aka RNF56) is a member of the Cbl family of RING-type E3 Ubiquitin ligases, and has been implicated in the regulation of pathways associated with cell differentiation, tissue development, skeletal muscle atrophy and adaptive immunity. Along with its RING-type zinc finger domain, Cbl-B contains an N-terminal tyrosine kinase binding (TKB) domain and a C-terminal UBA (Ubiquitin Associated) domain. This E3 ligase preferentially interacts with phosphotyrosine-modified intracellular signaling molecules, targeting them for ubiquitination. Reported substrates for Cbl-B include VAV1, PIKR1, SYK, SRC, EGFR, AXL and others. Downregulation of Cbl-B has been shown to remove the requirement for CD28 co-stimulation during T-cell activation, suggesting Cbl-B inhibitors may be useful in various cancer immunotherapies.

**References:**

1. Kobashigawa, Y. *et al.* (2011) Proc. Nat. Acad. Sci. **108**: 20579.
2. Rorsman, C. *et al.* (2016) J. Biol. Chem. **291**: 11608.
3. Sitaram, P. *et al.* (2019) Int. J. Mol. Sci. **20**: 5821.