Cbl-b (Casitas B-lineage lymphoma proto-oncogene-b) TKB + RING

Cat. # UB308

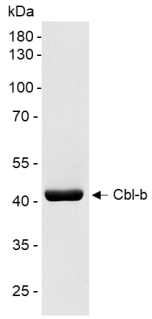
Background

Cbl-b is an E3 ligase which regulates many different signaling molecules in the cell. The mammalian Cbl family of proteins is highly conserved throughout evolution from nematodes to humans and consists of c-Cbl, Cbl-b, and Cbl-3. All three members of the Cbl family of proteins share a highly Homologous tyrosine kinase-binding (TKB) domain. The TKB domain is followed by a highly conserved helical linker (L) domain and a RING (Really Interesting New Gene) finger (RF) domain, which bind to ubiquitin-conjugating enzymes (E2). In contrast, the C-terminal regions of this family of proteins are less conserved. Cbl-b has been demonstrated to play a crucial role in establishing the threshold for T-cell activation and controlling peripheral T-cell tolerance via multiple mechanisms.

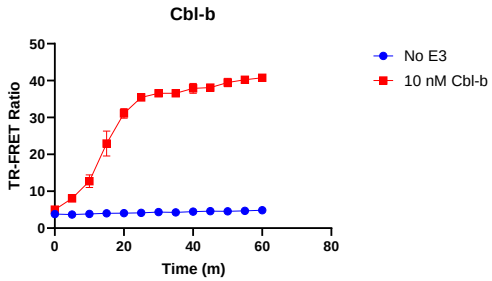
Product Information

Purity	≥ 95% by SDS-PAGE
Molecular Weight	48 kDa
Quantity	25 µg
Physical State	Liquid
Species	Human
Source	*E. coli*
Tag	His6 + HA
Activity	Typical enzyme concentration of 100 nM - 5 mM is used for in vitro conjugation, depending on conditions.
Storage	-80° C. Avoid repeated freeze/thaw cycles

Product QC



SDS-Page Analysis of purified Cbl-b. Two µg of the protein was loaded on a 10-20% SDS-PAGE gel and stained with Coomassie brilliant blue.



Activity Assay of Cbl-b. 10 nM Cbl-b was tested in a TR-FRET assay showing robust E3 ligase activity.

References

1. Augustin, RC., et al., J Immunother Cancer, 2023. 11(2):e006007.
2. Kumar, J., et al., J Immunother Cancer, 2021. 9(1):e001688.