Revision 1

Store at -20C

#74467

Cbl-b (D3C12) Rabbit mAb (Biotinylated)

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	125,130	Rabbit IgG	#Q13191	868

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 136 mM NaCl, 2.6 mM KCI, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA, and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity

Cbl-b (D3C12) Rabbit mAb (Biotinylated) recognizes endogenous levels of total Cbl-b protein. This antibody does not cross-react with c-Cbl and based upon sequence alignment, is not predicted to cross-react with Cbl-c.

Species predicted to react based on 100% sequence homology

Bovine, Rabbit

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human Cbl-b protein.

Description

This Cell Signaling Technology antibody is conjugated to biotin under optimal conditions. The biotinylated antibody is expected to exhibit the same species cross-reactivity as the unconjugated Cbl-b (D3C12) Rabbit mAb #9498.

Background

The Casitas B lineage lymphoma (Cbl) proteins (in mammals these are c-Cbl, Cbl-b, and Cbl-c) are a family of single subunit RING finger protein-ubiquitin E3 ligases that contain multiple protein interaction motifs (1). All Cbl proteins have a highly conserved N-terminal tyrosine kinase-binding (TKB) domain that mediates interactions between Cbl proteins and phosphorylated tyrosine residues on Cbl substrates. C-terminal to the RING finger, Cbl proteins have proline-rich domains that mediate interactions with SH3 domain-containing proteins. Phosphorylated tyrosine residues mediate interactions with SH2 domain-containing proteins such as the p85 subunit of PI3K. These protein-protein interaction motifs allow Cbl family proteins to function as adaptor proteins (2). This adaptor function contributes to the E3-dependent activities of Cbl proteins by targeting specific substrates for ubiquitination and degradation. The adaptor function also contributes to non-E3-dependent activities, such as the recruitment of proteins involved in receptor tyrosine kinase internalization, localization of Cbl proteins to specific subcellular compartments, and activation of discrete signaling pathways (1).

Background References

1. Schmidt, M.H. and Dikic, I. (2005) *Nat Rev Mol Cell Biol* 6, 907-18.
2. Naramura, M. et al. (2002) *Nat Immunol* 3, 1192-9.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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Limited Uses

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