CBLB Conjugated Antibody

Catalog No: #C32551

Package Size: #C32551-AF350 100ul #C32551-AF405 100ul #C32551-AF488 100ul #C32551-AF555 100ul #C32551-AF594 100ul #C32551-AF647 100ul #C32551-AF680 100ul #C32551-AF750 100ul #C32551-Biotin 100ul

Orders: order@signalwayantibody.com
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Description

Product Name	CBLB Conjugated Antibody
Host Species	Rabbit
Clonality	Polyclonal
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of total CBLB protein.
Immunogen Description	Recombinant protein of human CBLB.
Conjugates	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Other Names	Cbl-b;RNF56;Nbla00127
Accession No.	Swiss-Prot#:Q13191NCBI Gene ID:868
Uniprot	Q13191
GeneID	868;
Excitation Emission	AF350: 346nm/442nm AF405: 401nm/421nm AF488: 493nm/519nm AF555: 555nm/565nm AF594: 591nm/614nm AF647: 651nm/667nm AF680: 679nm/702nm AF750: 749nm/775nm
Calculated MW	109
Formulation	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Storage	Store at 4°C in dark for 6 months

Application Details

Suggested Dilution:

AF350 conjugated: most applications: 1: 50 - 1: 250

AF405 conjugated: most applications: 1: 50 - 1: 250

AF488 conjugated: most applications: 1: 50 - 1: 250

AF555 conjugated: most applications: 1: 50 - 1: 250

AF594 conjugated: most applications: 1: 50 - 1: 250

AF647 conjugated: most applications: 1: 50 - 1: 250

AF680 conjugated: most applications: 1: 50 - 1: 250

AF750 conjugated: most applications: 1: 50 - 1: 250

Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1: 50 - 1: 1,000

Product Description

Antibodies were purified by affinity purification using immunogen.

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).

Cbl-b is an E3 ubiquitin ligase with a domain organization nearly identical to that of c-Cbl. The role of Cbl-b in hematopoietic cell physiology is well documented. Cbl-b expression is important for the downregulation of TCR expression during antigen recognition (2). Cbl-b also acts as a potent negative regulator of the CD28 signaling cascade to Vav and Rac1 through its ability to ubiquitinate the p85 regulatory subunit of PI3K (3,4). As a critical regulator of clonal anergy in T lymphocytes, Cbl-b mRNA and protein are upregulated in T cells following calcium mobilization and calcineurin activation (5). Cbl-b-deficient T cells are resistant to anergy induction (5). The molecular events governing this phenotype are thought to be linked to defects in the ubiquitination of PLCγ1 and PKCθ since the degradation of these signaling molecules, which occurs following restimulation of wild-type anergic T cells, fails to occur in Cbl-b-deficient T cells (5).

Note: This product is for in vitro research use only