
CBLB Antibody Blocking Peptide

Catalog Number: bs-5949P

Activity: Not tested

Purification: HPLC

Storage: Shipped at 4°C. Stored at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: CBLB (Cas Br M (murine) ecotropic retroviral transforming sequence b) has high homology to CBL, the proto-oncogene that induces pre-B cell lymphomas and myeloid leukemias in mice. Like CBL, CBLB contains putative nuclear localization signal, zinc finger, leucine zipper, and proline-rich domains. CBLB associates with FYN, FGR, and PLCG1. Acts as an E3 ubiquitin-protein ligase which accepts ubiquitin from specific E2 ubiquitin-conjugating enzymes, and transfers it to substrates, generally promoting their degradation by the proteasome. Negatively regulates TCR (T-cell receptor), BCR (B-cell receptor) and FCER1 (high affinity immunoglobulin epsilon receptor) signal transduction pathways. In naive T-cells, inhibits VAV1 activation upon TCR engagement and imposes a requirement for CD28 costimulation for proliferation and IL-2 production. Also acts by promoting PIK3R1/p85 ubiquitination, which impairs its recruitment to the TCR and subsequent activation. In activated T-cells, inhibits PLCG1 activation and calcium mobilization upon restimulation and promotes energy. In B-cells, acts by ubiquitinating SYK and promoting its proteasomal degradation. May also be involved in EGFR ubiquitination and internalization. In addition to its role in the prevention of chronic inflammation and autoimmunity, CBLB also has a function in acute lung inflammation. There are 4 isoforms produced by alternative splicing.