

## DESCRIPTION

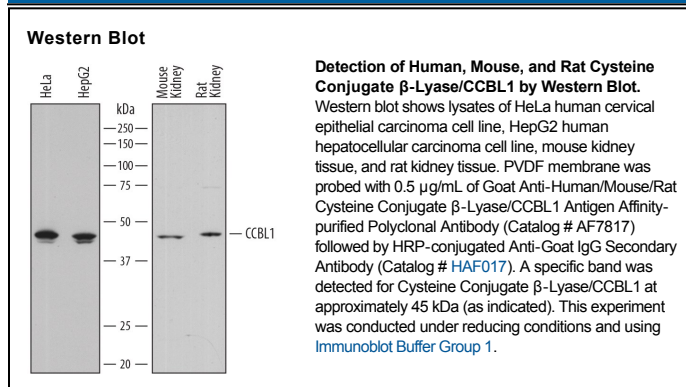
<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human, mouse, and rat Cysteine Conjugate $\beta$ -Lyase/CCBL1 in Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Cysteine Conjugate $\beta$ -Lyase/CCBL1 Thr182-Leu422 Accession # Q16773
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 $\mu$ m filtered solution in PBS.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.5 $\mu$ g/mL	See Below

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 $^{\circ}$ C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 <math>^{\circ}</math>C as supplied.</li> <li>• 1 month, 2 to 8 <math>^{\circ}</math>C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 <math>^{\circ}</math>C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

CCBL1 (Cysteine Conjugate  $\beta$ -Lyase 1; also GTK and KAT-I) is a 90-120 kDa homodimeric member of the Class I Pyridoxyl-phosphate-dependent aminotransferase family of enzymes. It is widely expressed, being found in fibroblasts, renal epithelium, hepatocytes, neurons and astrocytes. CCBL1 has multiple activities, including converting prodrugs into active formulations, generating kynurenic acid from kynurenine, thereby antagonizing NMDA receptors (but not likely presynaptic  $\alpha$ 7 AChRs), and blocking the release of proinflammatory cytokines by microglia via GPCR-35 antagonism. Human CCBL1 is 422 amino acids (aa) in length, and contains one aspartate aminotransferase-like region (aa 31-417). There are three potential splice variants, one that shows a deletion of aa 68-117, a second that shows a deletion of aa 251-422, and a third that contains a 21 aa substitution for aa 230-250. While the 422 aa isoform is considered cytosolic, there is the potential for a 34 aa N-terminal extension that would act as a mitochondrial targeting sequence. Such a sequence is reported for rat and nonhuman primate. Over aa 182-422, human CCBL1 shares 82% aa sequence identity with mouse CCBL1.