

#### 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<br>Thr182-Leu422<br>Accession # Q16773                                                                                                                |
| <b>Conjugate</b>          | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### 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.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### 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.

#### PRODUCT SPECIFIC NOTICES

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