**DESCRIPTION**

**Species Reactivity**  
Human

**Specificity**  
Detects human Kynureninase in direct ELISAs and Western blots.

**Source**  
Polyclonal Goat IgG

**Purification**  
Antigen Affinity-purified

**Immunogen**  
*S. frugiperda* insect ovarian cell line Sf21-derived recombinant human Kynureninase Met1-Asn465  
Accession # Q16719

**Formulation**  
Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

*Small pack size (SP) is supplied either lyophilized or as a 0.2 μm 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.

<table>
<thead>
<tr>
<th><strong>Recommended Concentration</strong></th>
<th><strong>Sample</strong></th>
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</thead>
<tbody>
<tr>
<td>Western Blot</td>
<td>1 μg/mL</td>
</tr>
<tr>
<td>Immunoprecipitation</td>
<td>25 μg/mL</td>
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</tbody>
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**DATA**

Detection of Human Kynureninase by Western Blot. Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line. PVDF membrane was probed with 1 μg/mL of Goat Anti-Human Kynureninase Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4887) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Kynureninase at approximately 50 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**PREPARATION AND STORAGE**

**Reconstitution**  
Reconstitute at 0.2 mg/mL in sterile PBS.

**Shipping**  
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 °C.

**Stability & Storage**  
Use a manual defrost freezer and avoid repeated freeze-thaw cycles.  
- 12 months from date of receipt, -20 to -70 °C as supplied.  
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.  
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

**BACKGROUND**

Kynureninase is a pyridoxal-5'-phosphate-dependent enzyme that catalyzes the hydrolytic cleavage of the amino acids L-kynurenine and L-3-hydroxykynurenine to give either anthranilic acid or 3-hydroxyanthranilic acid and alanine (1). The enzyme is a member of the "kynurenine pathway" enzymes, through which the majority of dietary tryptophan is degraded in the liver, and is involved in the de novo biosynthesis of NAD+ (2, 3). Kynurenine pathway genes are expressed in immune system cells such as macrophages and microglia. During inflammatory responses, the kynurenine pathway in these cells produces quinolinic acid (QA) and not NAD+. QA excites neurons via the activation of NMDA (N-methyl-D-aspartate) receptors resulting in neuronal damage. The tissue-damaging process has been demonstrated in AIDS-related dementia complex, Alzheimer's, stroke, epilepsy, and Huntington's disease. Because Kynureninase is one of the key enzymes of QA production, its inhibitors may be useful for the treatment of neurological disorders. The recombinant Kynureninase has been shown to possess specificity for 3-hydroxykynurenine over kynurenine (4, 5).

**References:**