

DESCRIPTION

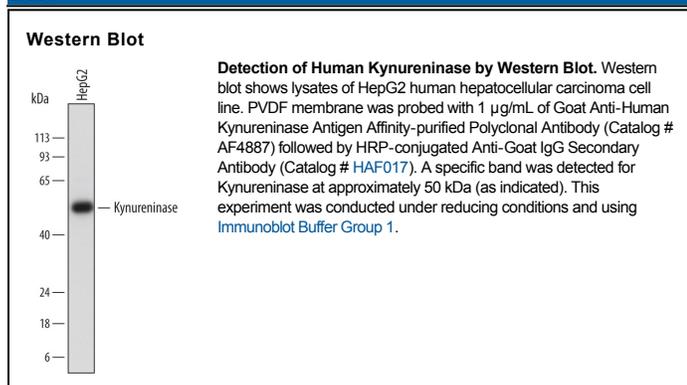
Species Reactivity	Human
Specificity	Detects human Kynureninase in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Kynureninase Met1-Asn465 Accession # Q16719
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Kynureninase (Catalog # 4887-KH), see our available Western blot detection antibodies

DATA



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. <ul style="list-style-type: none"> ● 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:

1. Lima, S. *et al.* (2007) *Biochemistry* **46**:2735.
2. Botting, N. P. (1995) *Chem. Soc. Rev.* **24**:401.
3. Stone, T. W. (2000) *Trends in Pharm. Sci.* **21**:149.
4. Walsh, H. *et al.* (2002) *Eur. J. Chem.* **269**:2069.
5. Toma, S. *et al.* (1997) *FEBS Lett.* **408**:5.