Active Recombinant Human Kynureninase, Carrier Free

Cat. No. KYNU-11H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Kynureninase, expressed in Spodoptera frugiperda, Sf 21 (baculovirus) derived.
Species	Human
Source	Sf21 Cells
Description	Kynureninase is a pyridoxal-5-phosphatedependent 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. 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+. 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 (NmethylDaspartate) receptors resulting in neuronal damage. The tissue damaging pr centigradeess has been demonstrated in AID 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.
Form	Supplied as a 0.2 μm filtered solution in MES and NaCl.

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Bio-activity	Measured by its ability to oxidize 3hydroxy kynurenine. The specific activity is >75 pmoles/min/µg, as measured under the described conditions. See Activity Assay Prot centigradeol.
Molecular Mass	51 kDa, reducing conditions
Endotoxin	<1.0 eu per 1 µg of the protein by the lal</1.0
Purity	>95%, by SDSPAGE under reducing conditions and visualized by silver stain.
Usage	FOR RESEARCH USE ONLY
Quality Control Test	12 months from date of receipt, 20 to 70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, 20 to 70 centigrade under sterile conditions after reconstitution.
Warning	Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	KYNU kynureninase [Homo sapiens]
Official Symbol	KYNU
Synonyms	KYNU; kynureninase; kynureninase (L kynurenine hydrolase); L kynurenine hydrolase; kynureninase (L-kynurenine hydrolase);
Gene ID	8942
mRNA Refseq	NM_001032998

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Protein Refseq	NP_001028170
MIM	605197
UniProt ID	Q16719
Chromosome Location	2q22.2
Pathway	Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of amino acids and derivatives, organism-specific biosystem; NAD biosynthesis II (from tryptophan), organism-specific biosystem; Selenium Pathway, organism-specific biosystem; Tryptophan catabolism, organism-specific biosystem; Tryptophan metabolism, organism-specific biosystem;
Function	hydrolase activity; kynureninase activity; kynureninase activity; kynureninase activity; kynureninase activity; protein homodimerization activity; pyridoxal phosphate binding;

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