

kynureninase/KYNU Protein, Human, Recombinant (His)

General Information

Synonyms:	KYNUU;kynureninase
Protein Construction:	A DNA sequence encoding the human KYNU (Q16719) (Met1-Asn465) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Met 1
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	Q16719
Molecular Weight:	53.80 kDa (predicted); 47 kDa (reducing conditions)

QC Testing

Biological Activity:	Measured by its ability to oxidize 3-hydroxykynurenine. The specific activity is > 200 pmoles/min/ μ g.
Purity:	> 92 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/ μ g of the protein as determined by the LAL method.
Formulation:	Supplied as sterile 20 mM Tris, 500 mM NaCl, pH 8.0, 25% gly.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store the product under sterile conditions at -20°C to -80°C . Samples are stable for up to 12 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

Proteins are shipped with blue ice.

Protein Background

KYNU (Kynureninase) is a Protein Coding gene. KYNU is a pyridoxal-5'-phosphate (pyridoxal-P) dependent enzyme that catalyzes the cleavage of L-kynurenine and L-3-hydroxykynurenine into anthranilic and 3-hydroxyanthranilic acids, respectively. Genetic studies in the mouse and the human suggest that kynureninase activity may influence blood pressure and renal function. The gene coding kynureninase (KYNU) is also located on chromosome band 2q14-q23, where a linkage peak for essential hypertension was previously detected in the Chinese Han population. The results show that the rare KYNU variant Arg188Gln affects kynureninase activity and are consistent with the hypothesis that this mutation can predispose to essential hypertension. Diseases associated with KYNU include Hydroxykynureninuria and Vertebral, Cardiac, Renal, And Limb Defects Syndrome 2.

Reference

Lima S,et al.(2007) Crystal structure of Homo sapiens kynureninase. *Biochemistry*. 46(10): 2735-44.

Momany C,et al.(2004) Three-dimensional structure of kynureninase from *Pseudomonas fluorescens*. *Biochemistry*. 43(5): 1193-203.

Toma S,et al.(1997) Cloning and recombinant expression of rat and human kynureninase. *FEBS Lett*. 408(1): 5-10.

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