Recombinant Human Tryptophan 2,3-Dioxygenase, T7-tagged

Cat. No. TDO2-823H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant TDO2 protein was expressed in E.coli with T7-tag at the N-terminus. The molecular weight is 47872 Da.
Species	Human
Source	E.coli
Description	In Anopheles gambiae tryptophan 2,3-dioxygenase (TDO) is the only enzyme able to catalyze the first and ratelimiting step in L-Trp catabolism through the kynurenine pathway. On the contrary, in mammals, L-Trp can enter the kynurenine pathway through the alternative action of two enzymes, TDO and Indoleamine 2,3-dioxygenase (IDO). TDO converts L-tryptophan to N- formyl kynurenine by catalyzing the heme-dependent oxidative opening of the substrate indole ring. The metabolism of L-tryptophan (L-Trp) exceeding the protein synthesis requirements proceeds through several routes, generating a number of compounds that play multiple roles in controlling basic aspects of the biology of most living organisms.
Sequences of amino acids	1-406 aa
Formulation	10 mM Tris. pH 8.0. 0.1% Triton X-100. 0.002% NaN3. 10mM DTT.
Purity	95%

GENE INFORMATION

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Gene Name	TDO2 tryptophan 2,3-dioxygenase [Homo sapiens]
Synonyms	TDO; TPH2; TRPO; TDO2; tryptophan 2,3-dioxygenase; TO; tryptophanase; tryptophan oxygenase; tryptophan pyrrolase; tryptamin 2,3-dioxygenase;EC 1.13.11.11
Gene ID	6999
mRNA Refseq	NM_005651
Protein Refseq	NP_005642
MIM	191070
UniProt ID	P48775
Chromosome Location	4q31-q32
Pathway	Metabolic pathways; Tryptophan metabolism; Metabolism of amino acids and derivatives
Function	amino acid binding; heme binding; metal ion binding; oxidoreductase activity; oxygen binding; oxygen binding; tryptophan 2,3-dioxygenase activity

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