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Product datasheet for TP306592M

IDO1 (NM_002164) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human indoleamine 2,3-dioxygenase 1 (IDO1), 100 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC206592 protein sequence Red=Cloning site Green=Tags(s) MAHAMENSWTISKEYHIDEEVGFALPNPQENLPDFYNDWMFIAKHLPDLIESGQLRERVEKLNMLSIDHL TDHKSQRLARLVLGCITMAYVWGKGHGDVRKVLPRNIAVPYCQLSKKLELPPILVYADCVLANWKKKDPN KPLTYENMDVLFSFRDGDCSKGFFLVSLLVEIAAASAIKVIPTVFKAMQMQERDTLLKALLEIASCLEKA LQVFHQIHDHVNPKAFFSVLRIYLSGWKGNPQLSDGLVYEGFWEDPKEFAGGSAGQSSVFQCFDVLLGIQ QTAGGGHAAQFLQDMRRYMPPAHRNFLCSLESNPSVREFVLSKGDAGLREAYDACVKALVSLRSYHLQIV TKYILIPASQQPKENKTSEDPSKLEAKGTGGTDLMNFLKTVRSTTEKSLLKEG TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK
Predicted MW:	45.1 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Bioactivity:	The specific activity of IDOI was determined by monitoring kynurenine formation from N-formylkynurenine based on the absorbance at 492nm. The N-formylkynurenine was produced from a conversion of tryptophan with IDO1. The reaction was carried out at 25°C for 15min in the buffer containing 100mM PBS, pH6.5, 40mM ascorbic acid, 450 units catalase, 20µM methylene blue, and 800µM L-tryptophan as the substrate. The reaction was terminated by adding 50ul of 30% (w/v) trichloroacetic acid. The sample was further incubated for 30min at 60°C and centrifuged at 12000 rpm for 15 min. The supernatant was used to mix with an equal volume of Ehrlich's reagent (2% p-dimethylaminobenzaldehyde in glacial acetic acid) to measure the absorbance at 492 nm after 10min incubation.

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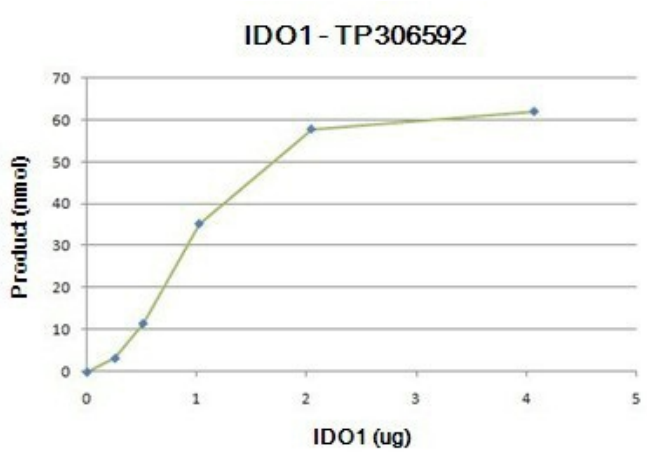
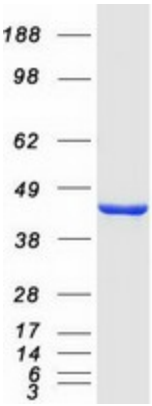
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_002155
Locus ID:	3620
UniProt ID:	P14902, A0A348GSI3
RefSeq Size:	1944
Cytogenetics:	8p11.21
RefSeq ORF:	1209
Synonyms:	IDO; IDO-1; INDO
Summary:	This gene encodes indoleamine 2,3-dioxygenase (IDO) - a heme enzyme that catalyzes the first and rate-limiting step in tryptophan catabolism to N-formyl-kynurenine. This enzyme acts on multiple tryptophan substrates including D-tryptophan, L-tryptophan, 5-hydroxy-tryptophan, tryptamine, and serotonin. This enzyme is thought to play a role in a variety of pathophysiological processes such as antimicrobial and antitumor defense, neuropathology, immunoregulation, and antioxidant activity. Through its expression in dendritic cells, monocytes, and macrophages this enzyme modulates T-cell behavior by its peri-cellular catabolization of the essential amino acid tryptophan.[provided by RefSeq, Feb 2011]
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Tryptophan metabolism

Product images:





Coomassie blue staining of purified IDO1 protein (Cat# [TP306592]). The protein was produced from HEK293T cells transfected with IDO1 cDNA clone (Cat# [RC206592]) using MegaTran 2.0 (Cat# [TT210002]).