Active Recombinant Full Length Human IDO1 Protein, C-Flag-tagged

Cat. No. IDO1-101HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human IDO1 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	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.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Bio-activity	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

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	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.
Molecular Mass	45.1 kDa
AA Sequence	MAHAMENSWTISKEYHIDEEVGFALPNPQENLPDFYNDWMFIAKHLPDLIESGQLRE RVEKLNMLSIDHL TDHKSQRLARLVLGCITMAYVWGKGHGDVRKVLPRNIAVPYCQ LSKKLELPPILVYADCVLANWKKKDPN KPLTYENMDVLFSFRDGDCSKGFFLVSLLV EIAAASAIKVIPTVFKAMQMQERDTLLKALLEIASCLEKA LQVFHQIHDHVNPKAFFSV LRIYLSGWKGNPQLSDGLVYEGFWEDPKEFAGGSAGQSSVFQCFDVLLGIQ QTAG GGHAAQFLQDMRRYMPPAHRNFLCSLESNPSVREFVLSKGDAGLREAYDACVKAL VSLRSYHLQIV TKYILIPASQQPKENKTSEDPSKLEAKGTGGTDLMNFLKTVRSTTEKSLLKEGTRTRP LEQKLISEEDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.

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Protein Families	Druggable Genome
Protein Pathways	Metabolic pathways, Tryptophan metabolism
Full Length	Full L.

GENE INFORMATION

Gene Name	IDO1 indoleamine 2,3-dioxygenase 1 [Homo sapiens (human)]
Official Symbol	IDO1
Synonyms	IDO; INDO; IDO-1
Gene ID	3620
mRNA Refseq	NM_002164.6
Protein Refseq	NP_002155.1
MIM	147435
UniProt ID	P14902

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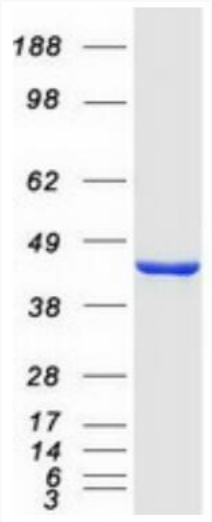

Coomassie blue staining of purified IDO1 protein.

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