Recombinant Human IDO1, His-tagged

Cat. No. IDO1-7189H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IDO1 (indoleamine 2,3-dioxygenase) (aa 1-403) fused a His-tag at the C-terminus, was expressed in E. coli.
Species	Human
Source	E.coli
Description	Indoleamine 2,3-dioxygenase(IDO) is a hemecontaining intracellular dioxygenase catalyzing the degradation of the essential amino acid L-tryptophan to N-formylkynurenine. This degradation is the first and ratelimiting step of the L-kynurenine pathway. IDO is widely expressed in dendritic cells, macrophages, microglia, eosinophils, fibroblasts, endothelial cells, and most tumor cells. In immune cells, its expression is mainly induced by cytokines such as IFN-γ, IFN-α, IFN-β, and IL-10. IDO has an antimicrobial function due to its decreasing the availability of the essential amino acid tryptophan in inflammatory environments. Recent studies have demonstrated that IDO induces immunosuppression during infection, pregnancy, transplantation, autoimmunity, and neoplasia.
Formulation	Liquid. 0.2μm-filtered solution in 50mM TRIS, pH 7.4, containing 1mM EDTA.
Purity	≥90% as determined by SDSPAGE
EndotoxinContent	<1.0EU/μg protein (LAL test).
Specific Activity	>100'000U/mg protein with L-tryptophan as substrate. One unit is defined as the

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	amount of enzyme that produces 1nmol of kynurenine per hour.
Stability	Store at -20°C for long term storage. After opening, prepare aliquots and store at -20°C. Avoid freeze/thaw cycles.
OfficialSymbol	IDO1

GENE INFORMATION

Gene Name	IDO1 indoleamine 2,3-dioxygenase 1 [Homo sapiens]
Synonyms	IDO1; indoleamine 2,3-dioxygenase 1; IDO; INDO; IDO-1; indoleamine 2,3-dioxygenase 1; EC 1.13.11.52; indole 2,3-dioxygenase; indolamine 2,3 dioxygenase; indoleamine-pyrrole 2,3-dioxygenase; Indoleamine-pyrrole 2
Gene ID	3620
mRNA Refseq	NM_002164
Protein Refseq	NP_002155
MIM	147435
UniProt ID	P14902
Chromosome Location	8p12-p11
Pathway	African trypanosomiasis; Metabolism of amino acids and derivatives; Tryptophan catabolism; tryptophan degradation XI (mammalian, via kynurenine)
Function	electron carrier activity; heme binding; indoleamine 2,3-dioxygenase activity; metal

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	ion binding; oxygen binding; tryptophan 2,3-dioxygenase activity; amino acid binding
PDB rendering basedon 2d0t.	

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA