

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. 0.2 μ m-filtered solution in 50mM TRIS, pH 7.4, containing 1mM EDTA.
Purity	$\geq 90\%$ as determined by SDSPAGE
EndotoxinContent	<1.0EU/g protein (LAL test).
Specific Activity	>100'000U/mg protein with L-tryptophan as substrate. One unit is defined as the

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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

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ion binding; oxygen binding; tryptophan 2,3-dioxygenase activity; amino acid binding

**PDB rendering
based on 2d0t.**

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