

Recombinant Human IDO1, His-tagged

Cat. No. IDO1-3909H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IDO1 (Ala2-Gly403) with an N-terminal Met and 6-His tag 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 toN-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.
Molecular Mass	The recombinant human IDO1 predicts a molecular mass of 46 kDa. It migrates as 42 kDa band in SDS-PAGE under reducing conditions.
Predict N-terminal	Met
Structure	Monomer

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Formulation	Supplied as a 0.2 µm filtered solution in Sodium Acetate, NaCl and Glycerol.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Activity	Measured by its ability to oxidize L-tryptophan to N-formylkynurenine. The specific activity is >500 pmol/min/µg, as measured under the described conditions.
Endotoxin Level	<1.0 EU per 1 µg of the protein by the LAL method.
Stability &Storage	Use a manual defrost freezer and avoid repeated freeze/thaw cycles. 6 months from date of receipt, -70°C as supplied. 3 month, -70 °C under sterile conditions after opening.
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

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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 ion binding; oxygen binding; tryptophan 2,3-dioxygenase activity; amino acid binding
PDBrendering based on 2d0t.	