

IDO1 recombinant protein

Recombinant IDO1 protein

CATALOG #
AAA60111

HOST
E Coli

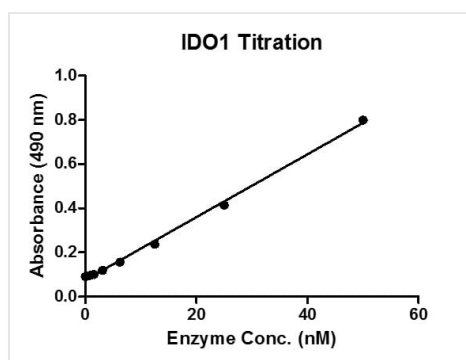
PRODUCT SYNONYMS

IDO1; Recombinant IDO1 protein; Indoleamine 2;3-dioxygenase 1; INDO; IDO-1; IDO1 recombinant protein

PRODUCT SPECIFICATIONS

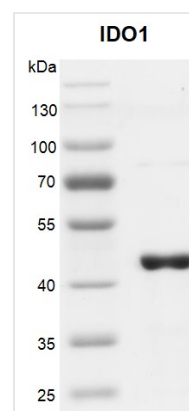
Host	E Coli
Form/Format	Recombinant IDO1 protein is supplied in 25mM Tris-HCl pH8.0, 300mM NaCl, 10% glycerol and 0.5mM TCEP.
Protein Species	Human
Tag	His-Tag
Notes	This protein is useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling. Activity Assay Conditions: 400uM L-tryptophan was incubated with different concentrations of IDO1 protein in reaction buffer including 50mM potassium phosphate pH 6.5, 20mM ascorbic acid, 10uM methylene blue and 200ug/ml catalase for 1 hr at 37 degree C. The total 200ul reaction was stopped by the addition of 40ul 30% (w/v) trichloroacetic acid and heated at 65 degree C for 15 min. After cooled down to 4 degree C, the reaction was centrifuged at 1,125 g for 10 min. 100ul supernatant was transferred into 96-well plate and mixed with 100ul of 2% (w/v) p-DMAB in acetic acid. The yellow pigment derived from kynurenine was measured at 490nm.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



Application Data

Recombinant IDO1 protein activity assay 400 uM L-tryptophan was incubated with different concentrations of IDO1 protein in reaction buffer mixture. The reaction was stopped by the addition of 40 ul 30% (w/v) trichloroacetic acid and heated at 65 degree C for 15 min. After cooling down to 4 degree C, the reaction was centrifuged at 1,125 g for 10 min. 100 ul supernatant was transferred into 96-well plate and mixed with 100 ul of 2% (w/v) p-DMAB. The yellow pigment derived from kynurenine was measured at 490 nm.



SDS-PAGE

Recombinant IDO1 protein gel 10% SDS-PAGE Coomassie staining MW: 47.5 kDa Purity: > 90%

ADDITIONAL INFORMATION

Related Product Information for IDO1 recombinant protein	Short Description: Recombinant IDO1 was expressed in E Coli as the full-length protein (accession number NP_002155.1) with an N-terminal 6xHis-tag. The molecular weight of the protein is 47.5 kDa. It is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. Background: IDO1 (Indoleamine 2,3-dioxygenase 1, also known as IDO, INDO, or IDO-1) is a heme enzyme that catalyzes the first and rate-limiting step in tryptophan catabolism to N-formyl-kynurenine. Tryptophan shortage inhibits T lymphocytes division and accumulation of tryptophan catabolites induces T-cell apoptosis and differentiation of regulatory T-cells. 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. IDO1 acts on multiple tryptophan substrates including D-tryptophan, L-tryptophan, 5-hydroxy-tryptophan, tryptamine, and serotonin.
Product Categories/Family for IDO1 recombinant protein	Recombinant Proteins

NCBI AND UNIPROT INFORMATION

NCBI GI #	4504577
NCBI GeneID	3620
NCBI Accession #	NP_002155.1
NCBI GenBank Nucleotide #	NM_002164.5
UniProt Accession #	P14902 ; Q540B4 ; E5RGR8 ; F6M9T7
Molecular Weight	45,326 Da
NCBI Official Full Name	indoleamine 2,3-dioxygenase 1
NCBI Official Synonym Full Names	indoleamine 2,3-dioxygenase 1
NCBI Official Symbol	IDO1
NCBI Official Synonym Symbols	IDO; INDO; IDO-1
NCBI Protein Information	indoleamine 2,3-dioxygenase 1
UniProt Protein Name	Indoleamine 2,3-dioxygenase 1
UniProt Gene Name	IDO1
UniProt Synonym Gene Names	IDO; INDO; IDO-1
UniProt Entry Name	I23O1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.