

Product datasheet for TP302777

TDO2 (NM_005651) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human tryptophan 2,3-dioxygenase (TDO2), 20 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC202777 protein sequence Red =Cloning site Green =Tags(s)

MSGCPFLGNNFGYTFKKLPVEGSEEDKSQTGVNRASKGGLIYGNYLHLEKVLNAQELQSETKGNKIHDEH
LFIITHQAYELWFKQILWELDSVREIFQNGHVRDERNMLKVVSRMHRVSVILKLLVQQFSILETMTALDF
NDFREYLSPASGFQSLQFRLLNKIGVLQNMVRPYNRRHYRDNFKGEENELLKSEQEKTLLELVEAWLE
RTPGLEPHGFNFWGKLEKNITRGLLEEFIRIQAKEESEKKEEQVAEFQKQKEVLLSLFDEKRHEHLLSKG
ERRLSYRALQGALMIYFYREEPRFQVPFQLLTSMDIDSLMTKWRYNHVCMVHRMLGSKAGTGGSSGYH
Y
LRSTVSDRYKVFVDLNLSTYLIPRHWIPKMNPTIHKFLYTAEYCDSSYFSSDES

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Predicted MW:	47.7 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Bioactivity:	The specific activity of TDO2 was determined by monitoring Kynurenine formation from the N-formylkynurenine based on the absorbance at 492nm. The N-formylkynurenine was produced from a conversion of tryptophan with TDO2. The reactions were carried out at 37°C for 40min in 100ul of the reaction volume containing 200mM PBS, pH7.5, 1mM ascorbic acid, and 1.25mM L-tryptophan as the substrate with various amounts of TDO2. 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



[View online »](#)

Preparation: Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.

Note: For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.

Storage: Store at -80°C.

Stability: Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

RefSeq: [NP_005642](#)

Locus ID: 6999

UniProt ID: [P48775](#)

RefSeq Size: 1703

Cytogenetics: 4q32.1

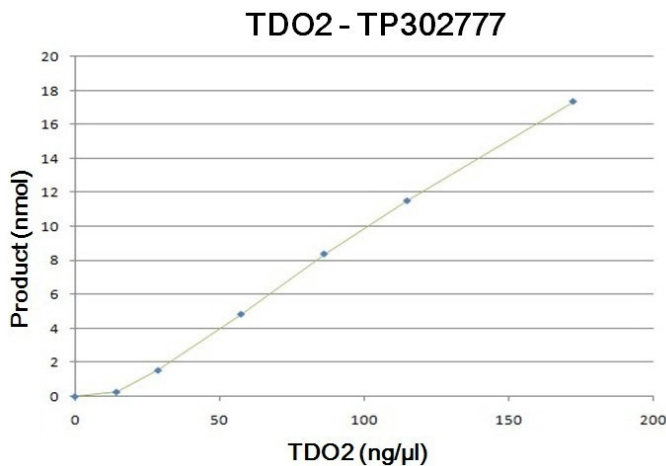
RefSeq ORF: 1218

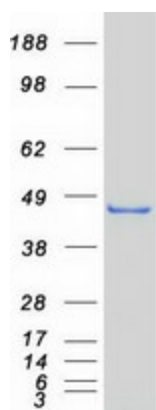
Synonyms: HYPTRP; TDO; TO; TPH2; TRPO

Summary: This gene encodes a heme enzyme that plays a critical role in tryptophan metabolism by catalyzing the first and rate-limiting step of the kynurenine pathway. Increased activity of the encoded protein and subsequent kynurenine production may also play a role in cancer through the suppression of antitumor immune responses, and single nucleotide polymorphisms in this gene may be associated with autism. [provided by RefSeq, Feb 2012]

Protein Pathways: Metabolic pathways, Tryptophan metabolism

Product images:





Coomassie blue staining of purified TDO2 protein (Cat# TP302777). The protein was produced from HEK293T cells transfected with TDO2 cDNA clone (Cat# [RC202777]) using MegaTran 2.0 (Cat# [TT210002]).