

Recombinant IDO2 (15-420) protein

Catalog No: 31587, 31987

Lot No: 24317001

Expressed In: *E. coli*

Quantity: 100, 1000 µg

Concentration: 0.16 µg/µl

Source: Human

Buffer Contents: Recombinant IDO2 (15 - 420) protein is supplied in 25 mM Tris-HCl pH 8.0, 300 mM NaCl, 10% glycerol and 0.5 mM TCEP.

Background: IDO2 (Indoleamine 2,3-Dioxygenase 2, also known as INDOL1, or IDO-2) 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 involved in immune regulation, may not play a significant role in tryptophan-related tumoral resistance.

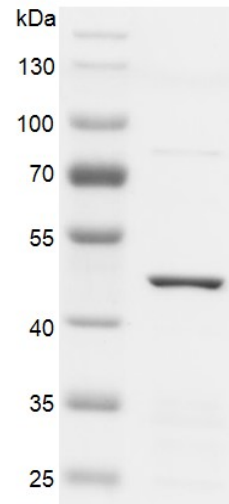
IDO1 and IDO2 are two distinct enzymes which catalyze the same reaction. IDO2 affinity for tryptophan is much lower than that of IDO1. 50 % of Caucasians harbor polymorphisms which abolish IDO2 enzymatic activity. IDO2 is expressed in human tumors in an inactive form. IDO2 may play a role as a negative regulator of IDO1 by competing for heme-binding with IDO1. Low efficiency IDO2 enzymes have been conserved throughout vertebrate evolution, whereas higher efficiency IDO1 enzymes are dispensable in many lower vertebrate lineages.

Protein Details: Recombinant IDO2 (15 - 420) protein that includes amino acids 15-420 of human IDO2 protein (accession number NP_919270.2) was expressed was expressed in *E. coli* cells with an N-terminal 6×His tag. The molecular weight of the protein is 48.8 kDa.

Application Notes: This protein is useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.

IDO2 (15-420)



Recombinant IDO2 (15-420) protein gel

10% SDS-PAGE Coomassie staining

MW: 48.8 kDa

Purity: > 85%