

IDO1, 1-403aa, Human, His-tag, E.coli (Bioactivity Validated)

Cat.NO.: TP02562

3th Edition

Synonyms: Indoleamine 2,3-dioxygenase 1, IDO, IDO-1, INDO

Description: IDO1 is an indoleamine 2,3-dioxygenase - a heme enzyme that catalyzes the first and rate-limiting step in tryptophan catabolism to N-formyl-kynurenine. This enzyme acts on multiple tryptophan substrates including D-tryptophan, and serotonin. It 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 pericellular catabolization of the essential amino acid tryptophan. Recombinant human IDO1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.

Form: Liquid. In 20mM Tris-HCl buffer (pH8.0) containing 0.15M NaCl, 20% glycerol, 1mM DTT

Molecular Weight: 47.7 kDa (426aa), confirmed by MALDI-TOF

Sequences:

MGSSHHHHHHSSGLVPRGSHMGSMAMHNSWTISKEYHIDEVGFALPNPQENLPDFYNDWMFIAKHLPDLIES
GQLRERVEKLNMLSIDHLTDHKSQRLARLVLCITMAYVWGKGHGDVRKVLPRNIAVPYCQLSKKLELPILVYADC
VLANWKKKDPNKPLTYENMDVLFSFRDGDGCKGFFLVSLLEIAAASAIKVIPTVFKAMQMQRDRTLLKALLEIASCL
EKALQVFHQIHDHVNPKAFFSVLRIYLSGWKGNPQLSDGLVYEGFWEDPKFAGGSAGQSSVFQCFDVLGLGIQQT
AGGGHAAQFLQDMRRYMPPAHRNFLCSLESNPSVREFVLSKGDAGLREAYDACVKALVSLRSYHLQIVTKYILIPA
SQPKENKTSKLEAKGTGGTDLNFKTVRSTTEKSLLKEG

Purity: > 95% by HPLC

Concentration: 0.5 mg/ml (determined by Bradford assay)

Endotoxin Level: <1.0 EU per 1 ug of protein (determined by LAL method)

Storage: Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.