

Recombinant Human IDO2 Protein (His tag)**Cat.NO.: TP07962**

3th Edition

Synonyms:INDOL1

Description:IDO2 belongs to the indoleamine 2,3-dioxygenase family. Indoleamine 2,3-dioxygenase (IDO), is a cytosolic haem protein which, together with the hepatic enzyme tryptophan 2,3-dioxygenase, catalyzes the conversion of tryptophan and other indole derivatives to kynurenines. In addition to classic IDO (IDO1), a new variant, IDO2, has recently been described. IDO2 is expressed in liver, small intestine, spleen, placenta, thymus, lung, brain, kidney, and colon. IDO is widely distributed in human tissues, its physiological role is not fully understood but is of great interest. IDO can be up-regulated via cytokines such as interferon-gamma, and can thereby modulate the levels of tryptophan, which is vital for cell growth. In humans and mice, the IDO1 and IDO2 genes are present tandemly in a tail-to-head arrangement on chromosome 8. In lower vertebrates such as zebrafish and toads only a single IDO gene may be present that may be more IDO2-like in structure. This closer relationship to IDO2 suggests that IDO2 may actually be the ancestor of the better characterized IDO1 gene, and that IDO1 might have been generated by gene duplication of IDO2 before the origin of tetrapods in mammalian evolutionary history. IDO2 catalyzes the first and rate-limiting step in the kynurenine pathway of tryptophan catabolism.

Form:PBS**Molecular Weight:**46.2 kDa**Sequences:**Met 14-Gly 420**Purity:**> 95% by HPLC**Concentration:****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.