

**Recombinant Protein Technical Manual Recombinant Human ID01/ID0 Protein (His** Tag)(Active) **RPES1387** 

<b>Size:</b> 10µg

Species: Human

Expression host: E. coli

**Uniprot:** P14902

Molecular Mass:	46.8 kDa
AP Molecular Mass:	40-50 kDa
Tag:	N-6His
Bio-activity:	Measured by its ability to oxidize L-tryptophan to N-formyl-kynurenine. The specific activity is 5166.667 pmol/min/µg pmol/min/µg.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per $\mu g$ as determined by the LAL method.
Storage:	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping:	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at<-20°C.
Formulation:	Supplied as a 0.2 $\mu m$ filtered solution of 20mM Sodium Acetate, 150mM NaCl and 20% Glycerol, pH4.5.
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	Indole 2;3-dioxygenase; Indoleamine 2;3-dioxygenase 1; IDO; IDO1; IDO; INDO

## Sequence: Met 1-Gly403

## Background:

Indoleamine 2,3-dioxygenase (IDO) is a heme enzyme that initiates the oxidative degradation of the least abundant, essential amino acid, I-tryptophan, along the kynurenine pathway. This protein is normally expressed in the dendritic cells, macrophages, microglia, eosinophils, fibroblasts, endothelial cells, and most tumor cells. IDO activity is associated with immunosuppression and immune attenuation. Several studies showed that IDO can contribute to immune escape when expressed directly in tumor cells or when expressed in immunosuppressive antigen presenting cells such as tolerogenic dendritic cells or tumor associated macrophages. IDO also is a promising therapeutic target for the treatment of cancer, chronic viral infections, and other diseases characterized by pathological immune suppression.