

## Product datasheet for **AP26405PU-N**

### IDO1 Sheep Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, FC, IF, IHC, WB
Recommended Dilution:	Flow cytometry: The typical starting working dilution is 1:50. Use in combination with fixing and permeabilisation. Immunoassays. Immunofluorescence. Immunohistochemistry on paraffin sections: The typical starting working dilution is 1:50. Western blot: The typical starting working dilution is 1:50.
Reactivity:	Human
Host:	Sheep
Isotype:	Ig
Clonality:	Polyclonal
Immunogen:	Recombinant IDO
Specificity:	The polyclonal antibody recognizes human indoleamine 2,3-dioxygenase (IDO). Reactivity of the polyclonal antibody with IDO has been confirmed on immuno blot with IFN-gamma stimulated human peripheral blood lymphocytes.
Formulation:	PBS State: Purified State: Liquid 0.2 µm filtered Ig fraction Stabilizer: 0.1% bovine serum albumin Preservative: 0.02% sodium azide
Concentration:	lot specific
Purification:	Protein A
Conjugation:	Unconjugated
Storage:	Store at 2 - 8 °C.
Stability:	Shelf life: one year from despatch.
Gene Name:	indoleamine 2,3-dioxygenase 1



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**Database Link:** [Entrez Gene 3620 Human P14902](#)

**Background:** IDO is an intracellular heme-containing enzyme that catalyzes the oxidative cleavage of the indole ring of several important regulatory molecules, like tryptophan, serotonin and melatonin. By doing this, IDO initiates the production of biologically active metabolites, commonly referred to as kynurenines. IDO is widely expressed in a variety of human tissues as well as in macrophages and dendritic cells (DCs). In inflammation, interferons (IFNs) act on specific receptors to trigger IDO induction. The production of IFN-gamma and induction of IDO represent important antimicrobial mechanisms. Degradation and depletion of tryptophan by IDO inhibits the growth of viruses, bacteria and parasites. Furthermore, IDO plays a complex and crucial role in immunoregulation during infection, pregnancy, autoimmunity, transplantation, and neoplasia. By local depletion of tryptophan and increasing proapoptotic kynurenines, IDO greatly affects T-cell proliferation and survival, both in vitro and in vivo, and also affects B-cell and NK-cell function and survival. There is a central role for IDO expression in tolerance involving regulatory cells and DCs. IDO acts as an intermediate pathway in LPS-induced production of reactive oxygen species and NF-kappaB activation, two processes that lead to DC maturation.

**Synonyms:** IDO1, IDO, INDO, Indoleamine 2,3-dioxygenase 1, EC=1.13.11.52, Indoleamine 2,3-dioxygenase, IDO, Indoleamine-pyrrole 2,3-dioxygenase