

IDO1 / IDO Antibody (clone 4D2)
Mouse Monoclonal Antibody
Catalog # ALS13344**Specification****IDO1 / IDO Antibody (clone 4D2) - Product Information**

Application	WB
Primary Accession	P14902
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	45kDa KDa

IDO1 / IDO Antibody (clone 4D2) - Additional Information**Gene ID** 3620**Other Names**

Indoleamine 2, 3-dioxygenase 1, IDO-1, 1.13.11.52, Indoleamine-pyrrole 2, 3-dioxygenase, IDO1, IDO, INDO

Reconstitution & Storage

Store at -20°C. Aliquot to avoid freeze/thaw cycles.

Precautions

IDO1 / IDO Antibody (clone 4D2) is for research use only and not for use in diagnostic or therapeutic procedures.

IDO1 / IDO Antibody (clone 4D2) - Protein Information**Name** IDO1 ([HGNC:6059](#))**Synonyms** IDO, INDO**Function**

Catalyzes the first and rate limiting step of the catabolism of the essential amino acid tryptophan along the kynurenine pathway (PubMed: [17671174](http://www.uniprot.org/citations/17671174)). Involved in the peripheral immune tolerance, contributing to maintain homeostasis by preventing autoimmunity or immunopathology that would result from uncontrolled and overreacting immune responses (PubMed: [25691885](http://www.uniprot.org/citations/25691885)). Tryptophan shortage inhibits T lymphocytes division and accumulation of tryptophan catabolites induces T-cell apoptosis and differentiation of regulatory T-cells (PubMed: [25691885](http://www.uniprot.org/citations/25691885)). Acts as a suppressor of anti-tumor immunity (PubMed: [23103127](http://www.uniprot.org/citations/23103127), PubMed: [25157255](http://www.uniprot.org/citations/25157255), PubMed: [14502282](http://www.uniprot.org/citations/14502282), PubMed: [25691885](http://www.uniprot.org/citations/25691885)).

target="_blank">25691885). Limits the growth of intracellular pathogens by depriving tryptophan (PubMed:25691885). Protects the fetus from maternal immune rejection (PubMed:25691885).

Cellular Location

Cytoplasm, cytosol {ECO:0000250|UniProtKB:P28776, ECO:0000303|PubMed:25691885}

Tissue Location

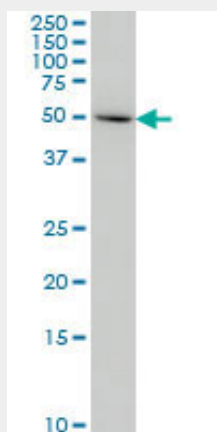
Expressed in mature dendritic cells located in lymphoid organs (including lymph nodes, spleen, tonsils, Peyer's patches, the gut lamina propria, and the thymic medulla), in some epithelial cells of the female genital tract, as well as in endothelial cells of term placenta and in lung parenchyma (PubMed:25691885). Weakly or not expressed in most normal tissues, but mostly inducible in most tissues (PubMed:25691885). Expressed in more than 50% of tumors, either by tumoral, stromal, or endothelial cells (expression in tumor is associated with a worse clinical outcome) (PubMed:18418598). Not overexpressed in tumor-draining lymph nodes (PubMed:26155395, PubMed:25691885).

IDO1 / IDO Antibody (clone 4D2) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

IDO1 / IDO Antibody (clone 4D2) - Images



INDO monoclonal antibody clone 4D2 Western blot of INDO expression in HeLa.

IDO1 / IDO Antibody (clone 4D2) - Background

Catalyzes the cleavage of the pyrrol ring of tryptophan and incorporates both atoms of a molecule of oxygen.

IDO1 / IDO Antibody (clone 4D2) - References

Dai W.,et al.Biochem. Biophys. Res. Commun. 168:1-8(1990).
Tone S.,et al.Nucleic Acids Res. 18:367-367(1990).
Kadoya A.,et al.Biochem. Biophys. Res. Commun. 189:530-536(1992).
He X.,et al.Submitted (JAN-2003) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).