

**Anti-IDO1 Antibody**  
**Catalog # ABO10925****Specification**

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**Anti-IDO1 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P14902</a>
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Indoleamine 2,3-dioxygenase 1(IDO1) detection. Tested with WB in Human.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-IDO1 Antibody - 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

**Calculated MW**

45326 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human<br>

**Protein Name**

Indoleamine 2,3-dioxygenase 1(IDO-1)

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the N-terminus of human IDO1 (1-20aa MAHAMENSWTISKEYHIDEE).

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After r°Constitution,**

at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

### Sequence Similarities

Belongs to the indoleamine 2,3-dioxygenase family.

## Anti-IDO1 Antibody - 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:<a href="http://www.uniprot.org/citations/17671174" target="\_blank">17671174</a>). 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:<a href="http://www.uniprot.org/citations/25691885" target="\_blank">25691885</a>). Tryptophan shortage inhibits T lymphocytes division and accumulation of tryptophan catabolites induces T-cell apoptosis and differentiation of regulatory T-cells (PubMed:<a href="http://www.uniprot.org/citations/25691885" target="\_blank">25691885</a>). Acts as a suppressor of anti-tumor immunity (PubMed:<a href="http://www.uniprot.org/citations/14502282" target="\_blank">14502282</a>, PubMed:<a href="http://www.uniprot.org/citations/23103127" target="\_blank">23103127</a>, PubMed:<a href="http://www.uniprot.org/citations/25157255" target="\_blank">25157255</a>, PubMed:<a href="http://www.uniprot.org/citations/25691885" target="\_blank">25691885</a>). Limits the growth of intracellular pathogens by depriving tryptophan (PubMed:<a href="http://www.uniprot.org/citations/25691885" target="\_blank">25691885</a>). Protects the fetus from maternal immune rejection (PubMed:<a href="http://www.uniprot.org/citations/25691885" target="\_blank">25691885</a>).

### 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:25691885, PubMed:26155395).

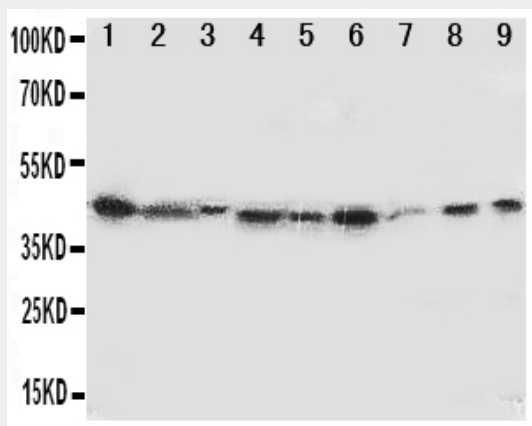
## Anti-IDO1 Antibody - Protocols

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](#)

### Anti-IDO1 Antibody - Images



Anti-IDO1 antibody, ABO10925, Western blotting All lanes: Anti IDO1 (ABO10925) at 0.5ug/ml  
Lane 1: SMMC Whole Cell Lysate at 40ug  
Lane 2: A549 Whole Cell Lysate at 40ug  
Lane 3: Human Placenta Tissue Lysate at 50ug  
Lane 4: SW620 Whole Cell Lysate at 40ug  
Lane 5: U87 Whole Cell Lysate at 40ug  
Lane 6: 293T Whole Cell Lysate at 40ug  
Lane 7: A431 Whole Cell Lysate at 40ug  
Lane 8: HELA Whole Cell Lysate at 40ug  
Lane 9: COLO320 Whole Cell Lysate at 40ug  
Predicted bind size: 45KD  
Observed bind size: 45KD

### Anti-IDO1 Antibody - Background

IDO1 (INDOLEAMINE 2,3-DIOXYGENASE), INDO or IDO, is an immunomodulatory enzyme produced by some alternatively activated macrophages and other immunoregulatory cells. This enzyme catalyzes the degradation of the essential amino acid L-tryptophan to N-formyl-kynurenine. By fluorescence in situ hybridization, the assignment is narrowed to chromosome 8p12-p11. INDO Interferon-gamma has an antiproliferative effect on many tumor cells and inhibits intracellular pathogens such as Toxoplasma and chlamydia, at least partly because of the induction of indoleamine 2,3-dioxygenase. During inflammation, IDO is upregulated in dendritic cells and phagocytes by proinflammatory stimuli, most notably IFNG, and the enzyme then uses superoxide as a 'cofactor' for oxidative cleavage of the indole ring of tryptophan, yielding an intermediate that deformylates to L-kynurenine.