

Anti-IDO1 Picoband Antibody
Catalog # ABO12289**Specification**

Anti-IDO1 Picoband Antibody - Product Information

Application	WB, IHC-P, ICC
Primary Accession	P14902
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

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

Reconstitution

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

Anti-IDO1 Picoband 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

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Protein Name

Indoleamine 2,3-dioxygenase 1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human IDO1 (37-69aa NDWMFIKHLPLDIESGQLRERVEKLNMLSIDH), different from the related mouse sequence by fourteen amino acids, and from the related rat sequence by seventeen amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, 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 Picoband 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:[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:[14502282](http://www.uniprot.org/citations/14502282), PubMed:[23103127](http://www.uniprot.org/citations/23103127), PubMed:[25157255](http://www.uniprot.org/citations/25157255), PubMed:[25691885](http://www.uniprot.org/citations/25691885)). Limits the growth of intracellular pathogens by depriving tryptophan (PubMed:[25691885](http://www.uniprot.org/citations/25691885)). Protects the fetus from maternal immune rejection (PubMed:[25691885](http://www.uniprot.org/citations/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:25691885, PubMed:26155395).

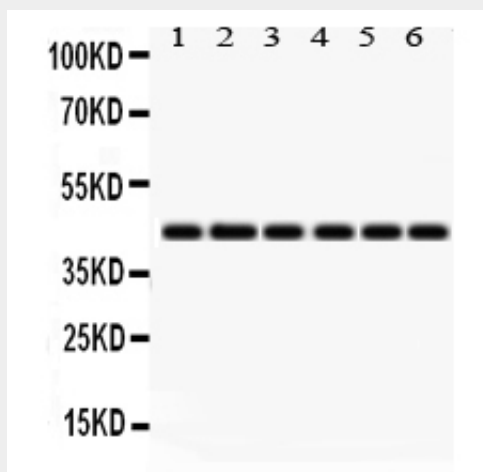
Anti-IDO1 Picoband Antibody - Protocols

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

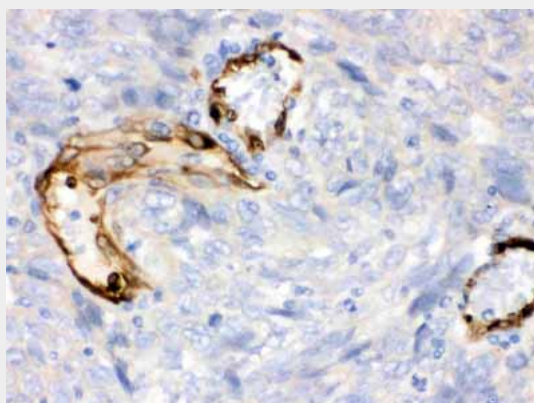
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)

- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-IDO1 Picoband Antibody - Images



Anti- IDO1 Picoband antibody, ABO12289, Western blotting All lanes: Anti IDO1 (ABO12289) at 0.5ug/ml
Lane 1: Rat Lung Tissue Lysate at 50ug
Lane 2: Rat Spleen Tissue Lysate at 50ug
Lane 3: Human Placenta Tissue Lysate at 50ug
Lane 4: A549 Whole Cell Lysate at 40ug
Lane 5: SW620 Whole Cell Lysate at 40ug
Lane 6: NIH3T3 Whole Cell Lysate at 40ug
Predicted bind size: 45KD
Observed bind size: 45KD



Anti- IDO1 Picoband antibody, ABO12289, IHC(P) IHC(P): Human Lung Cancer Tissue

Anti-IDO1 Picoband 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.