10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-IDO1 Picoband Antibody

Catalog # ABO12289

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.

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
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, By Heat Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Source	Eukaryota
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 NDWMFIAKHLPDLIESGQLRERVEKLNMLSIDH), 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 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.

Protein Information

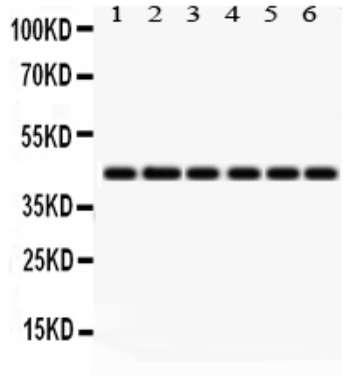
Name	IDO1 (HGNC:6059)
Synonyms	IDO, INDO
Function	Catalyzes the first and rate limiting step of the catabolism of the essential amino acid tryptophan along the kynurenine pathway (PubMed:17671174, PubMed:18026683). Involved in the peripheral immune tolerance, contributing to maintain homeostasis by preventing autoimmunity or immunopathology that would result from uncontrolled and overreacting immune responses (PubMed:25691885). Tryptophan shortage inhibits T lymphocytes division and accumulation of tryptophan catabolites induces T-cell apoptosis and differentiation of regulatory T-cells (PubMed:25691885). Acts as a suppressor of anti-tumor immunity (PubMed:14502282, PubMed:23103127, PubMed:25157255, PubMed: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, Peyers'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).

Background

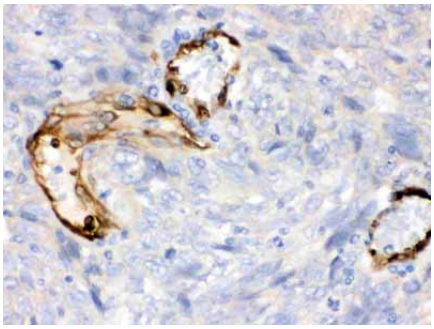
IDO1 (INDOLEAMINE 2,3-DIOXYGENASE), INDO or IDO, is an immunomodulatory enzyme produced by some alternatively activated macrophages and other immunoregulatory cells. This enzyme catalyzes the degradation of the essential amino acid L-tryptophan to N-formyl-kynurenine. By fluorescence in situ hybridization, 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.

Images

Anti- IDO1 Picoband antibody, ABO12289, Western blottingAll lanes: Anti IDO1 (ABO12289) at 0.5ug/mlLane 1: Rat Lung Tissue Lysate at 50ugLane 2: Rat Spleen Tissue Lysate at 50ugLane 3: Human Placenta Tissue Lysate at 50ugLane 4: A549 Whole Cell Lysate at 40ugLane 5: SW620 Whole Cell Lysate at 40ugLane 6:



NIH3T3 Whole Cell Lysate at 40ugPredicted bind size: 45KDObserved bind size: 45KD



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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.