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Anti-IDO1 Antibody
Catalog # ABO10925

Specification

Anti-IDO1 Antibody - Product Information

Application	**WB**
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 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

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

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

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: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). 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).

Anti-IDO1 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry

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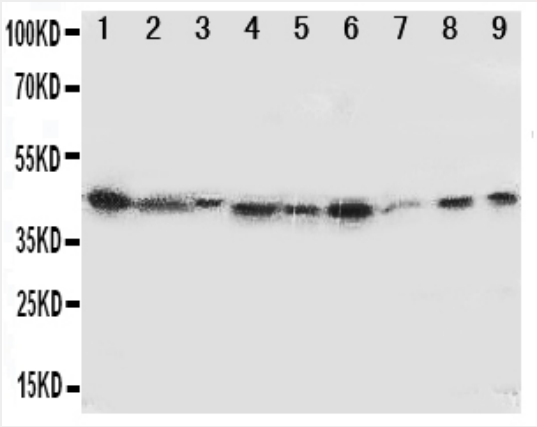
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-IDO1 Antibody - Images



Anti-IDO1 antibody, ABO10925, Western blottingAll lanes: Anti IDO1 (ABO10925) at 0.5ug/mlLane 1: SMMC Whole Cell Lysate at 40ugLane 2: A549 Whole Cell Lysate at 40ugLane 3: Human Placenta Tissue Lysate at 50ugLane 4: SW620 Whole Cell Lysate at 40ugLane 5: U87 Whole Cell Lysate at 40ugLane 6: 293T Whole Cell Lysate at 40ugLane 7: A431 Whole Cell Lysate at 40ugLane 8: HELA Whole Cell Lysate at 40ugLane 9: COLO320 Whole Cell Lysate at 40ugPredicted bind size: 45KDObserved 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.