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INDO Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2728b

Product Information

Application	WB, IHC-P, E
Primary Accession	P14902
Reactivity	Human
Predicted	Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	45326
Antigen Region	374-403

Additional Information

Gene ID	3620
Other Names	Indoleamine 2, 3-dioxygenase 1, IDO-1, Indoleamine-pyrrole 2, 3-dioxygenase, IDO1, IDO, INDO
Target/Specificity	This INDO antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 374-403 amino acids from the C-terminal region of human INDO.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	INDO Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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).

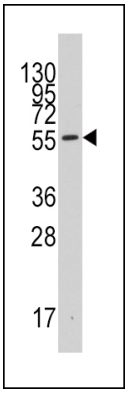
Background

Gamma-interferon (IFNG; MIM 147570) 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 (INDO; EC 1.13.11.52). This enzyme catalyzes the degradation of the essential amino acid L-tryptophan to N-formyl-kynurenine.[supplied by OMIM]

References

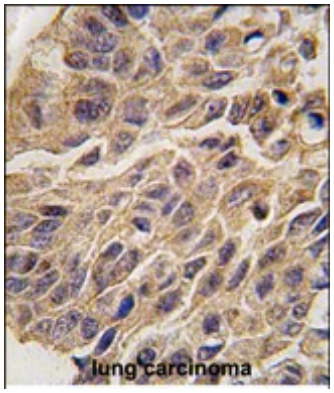
Maghzal,G.J., J. Biol. Chem. 283 (18), 12014-12025 (2008)
Chauhan,N., Biochemistry 47 (16), 4761-4769 (2008)
Scheler,M., Am. J. Pathol. 171 (6), 1936-1943 (2007)

Images



Western blot analysis of anti-INDO Antibody (C-term) (Cat.#AP2728b) in 293 cell line lysates (35ug/lane). INDO(arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with INDO antibody (C-term) (Cat.#AP2728b), which was peroxidase-conjugated to the



secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Citations

- S100G expression and function in fibroblasts on colitis induction.

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