

INDO Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP2728b**Specification**

INDO Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [P14902](#)**INDO Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 3620**Other Names**

Indoleamine 2, 3-dioxygenase 1, IDO-1, Indoleamine-pyrrole 2, 3-dioxygenase, IDO1, IDO, INDO

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP2728b](/products/AP2728b) was selected from the C-term region of human INDO. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

INDO Antibody (C-term) Blocking Peptide - 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))

target="_blank">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, 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).

INDO Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

INDO Antibody (C-term) Blocking Peptide - Images

INDO Antibody (C-term) Blocking Peptide - 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]

INDO Antibody (C-term) Blocking Peptide - 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)