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

# Anti-IDO1 Antibody

Catalog # AP52020

## Product Information

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| **Application** | WB |
| **Primary Accession** | P14902 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 45326 |

## Additional Information

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| **Gene ID** | 3620 |
| **Other Names** | IDO; INDO; Indoleamine 2, 3-dioxygenase 1; IDO-1; Indoleamine-pyrrole 2, 3-dioxygenase |
| **Target/Specificity** | KLH-conjugated synthetic peptide encompassing a sequence within the center region of human IDO1. The exact sequence is proprietary. |
| **Dilution** | WB~~WB (1/500 - 1/1000) |
| **Format** | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide. |
| **Storage** | Store at -20 °C.Stable for 12 months from date of receipt |

## Protein Information

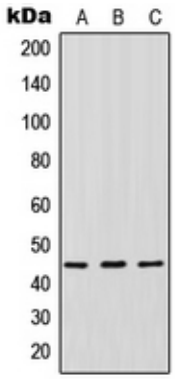
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| **Name** | IDO1 ( HGNC:6059) |
| **Synonyms** | IDO, INDO |
| **Function** | Catalyzes the first and rate limiting step of the catabolism of the essential amino acid tryptophan along the kynurenine pathway (PubMed:17671174, PubMed:18026683). Involved 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). |

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| **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). |

## References


Dai W.,et al.Biochem. Biophys. Res. Commun. 168:1-8(1990).
Tone S.,et al.Nucleic Acids Res. 18:367-367(1990).
Kadoya A.,et al.Biochem. Biophys. Res. Commun. 189:530-536(1992).
He X.,et al.Submitted (JAN-2003) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).


## Images




Western blot analysis of IDO1 expression in HeLa (A), A549 (B), H9C2 (C) whole cell lysates. (Predicted band size: 45 kD; Observed band size: 45 kD)


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