

POLYCLONAL ANTIBODY TO HUMAN INDOLEAMINE 2,3-DIOXYGENASE (IDO)



Catalog nr	HP5004 (lot number and expiry date are indicated on the label)												
Description	<p>The polyclonal antibody recognizes human indoleamine 2,3-dioxygenase (IDO). IDO is an intracellular heme-containing enzyme that catalyzes the oxidative cleavage of the indole ring of several important regulatory molecules, like tryptophan, serotonin and melatonin. By doing this, IDO initiates the production of biologically active metabolites, commonly referred to as kynurenines. IDO is widely expressed in a variety of human tissues as well as in macrophages and dendritic cells (DCs). In inflammation, interferons (IFNs) act on specific receptors to trigger IDO induction. The production of IFN-gamma and induction of IDO represent important antimicrobial mechanisms. Degradation and depletion of tryptophan by IDO inhibits the growth of viruses, bacteria and parasites. Furthermore, IDO plays a complex and crucial role in immunoregulation during infection, pregnancy, autoimmunity, transplantation, and neoplasia. By local depletion of tryptophan and increasing proapoptotic kynurenines, IDO greatly affects T-cell proliferation and survival, both <i>in vitro</i> and <i>in vivo</i>, and also affects B-cell and NK-cell function and survival. There is a central role for IDO expression in tolerance involving regulatory cells and DCs. IDO acts as an intermediate pathway in LPS-induced production of reactive oxygen species and NF-kappaB activation, two processes that lead to DC maturation.</p> <p>The polyclonal antibody is obtained after immunization of sheep with recombinant IDO. Reactivity of the polyclonal antibody with IDO has been confirmed on immuno blot with IFN-gamma stimulated human peripheral blood lymphocytes.</p>												
Aliases	Indoleamine-pyrrole 2,3 dioxygenase												
Species	Sheep Ig												
Formulation	1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.02% sodium azide and 0.1% bovine serum albumin.												
Application	The polyclonal antibody against human indoleamine 2,3 dioxygenase (IDO) can be used as detection antibody in immuno assays. Furthermore, the polyclonal antibody is useful for Western blot, immunohistology on paraffin embedded sections, immunofluorescence and flow cytometry.												
Use	For Western blotting, immunohistology and flow cytometry dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50. For flow cytometry, it is recommended that the polyclonal antibody is used in combination with fixing and permeabilisation.												
Storage and stability	Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.												
Precautions	For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and Federal rules in the use of this product. Hbt is not responsible for any patent infringements that might result with the use of or derivation of this product.												
References	<ol style="list-style-type: none">1. Grohmann, U et al; Tolerance, DCs and tryptophan: much ado about IDO. Trends Immunol 2003, 24: 2422. Royer, P et al; The Mannose Receptor Mediates the Uptake of Diverse Native Allergens by Dendritic Cells and Determines Allergen-Induced T Cell Polarization through Modulation of IDO Activity. J Immunol 2010, 185:1522												
Also available	<table><tr><td>HC2030a</td><td>Recombinant human IFN-gamma, E. Coli-derived</td></tr><tr><td>HIT303</td><td>Lectin <i>Narcissus pseudonarcissus</i> Early apoptosis detection kit</td></tr><tr><td>HIT304</td><td>Annexin V-FITC apoptosis, necrosis detection reagent</td></tr><tr><td>HM2087</td><td>Monoclonal antibody against human TLR9, clone 5G5</td></tr><tr><td>HM2003a</td><td>Monoclonal antibody against human IFN-gamma, clone F12</td></tr><tr><td>HP8036</td><td>Polyclonal antibody against rat IDO1</td></tr></table>	HC2030a	Recombinant human IFN-gamma, E. Coli-derived	HIT303	Lectin <i>Narcissus pseudonarcissus</i> Early apoptosis detection kit	HIT304	Annexin V-FITC apoptosis, necrosis detection reagent	HM2087	Monoclonal antibody against human TLR9, clone 5G5	HM2003a	Monoclonal antibody against human IFN-gamma, clone F12	HP8036	Polyclonal antibody against rat IDO1
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