# Human Indoleamine 2,3-dioxygenase/IDO Alexa Fluor® 350-conjugated Antibody

Monoclonal Mouse $IgG_{2B}$ Clone # 998736

Catalog Number: IC60302U

100 µg

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Human |
| **Specificity** | Detects human Indoleamine 2,3-dioxygenase/IDO in direct ELISAs. |
| **Source** | Monoclonal Mouse $IgG_{2B}$ Clone # 998736 |
| **Purification** | Protein A or G purified from hybridoma culture supernatant |
| **Immunogen** | *E. coli*-derived human Indoleamine 2,3-dioxygenase/IDO<br>Ala2-Gly403<br>Accession # P14902 |
| **Conjugate** | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 nm |
| **Formulation** | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide.<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

| | Recommended Concentration | Sample |
|---|---|---|
| **Flow Cytometry** | 0.25-1 µg/$10^6$ cells | Human PBMC monocytes fixed with 1% paraformaldehyde and permeabilized with saponin |

## PREPARATION AND STORAGE

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| **Shipping** | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| **Stability & Storage** | **Protect from light. Do not freeze.**<br>• 12 months from date of receipt, 2 to 8 °C as supplied. |

## BACKGROUND

Indoleamine 2,3-dioxygenase (IDO) is a heme-containing intracellular dioxygenase catalyzing the degradation of the essential amino acid L-tryptophan to N-formyl-kynurenine (1). This degradation is the first and rate-limiting step of the L-kynurenine pathway (2). IDO is widely expressed in dendritic cells, macrophages, microglia, eosinophils, fibroblasts, endothelial cells, and most tumor cells. In immune cells, its expression is mainly induced by cytokines such as IFN-γ, IFN-α, IFN-β, and IL-10. IDO has an antimicrobial function due to its decreasing the availability of the essential amino acid tryptophan in inflammatory environments (3). Recent studies have demonstrated that IDO induces immunosuppression during infection, pregnancy, transplantation, autoimmunity, and neoplasia (3-5).

**References:**


1. Lewis-Ballester, A. *et al.* (2009) Proc. Natl. Acad. Sci. USA. **106**:17371.
2. Costantino, G. (2009) Expert Opin. Ther. Targets **13**:247.
3. Xu, H. *et al.* (2008) Immunol. Lett. **121**:1.
4. Lob, S. *et al.* (2009) Nat. Rev. Cancer **9**:445.
5. Curti, A. *et al.* (2009) Blood **113**:2394.


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