

Human Indoleamine 2,3-dioxygenase/IDO Alexa Fluor® 647-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 998736

Catalog Number: IC60302R

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	<i>E. coli</i> -derived human Indoleamine 2,3-dioxygenase/IDO Ala2-Gly403 Accession # P14902
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *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

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. <ul style="list-style-type: none"> 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:

- Lewis-Ballester, A. *et al.* (2009) *Proc. Natl. Acad. Sci. USA.* **106**:17371.
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- Xu, H. *et al.* (2008) *Immunol. Lett.* **121**:1.
- Lob, S. *et al.* (2009) *Nat. Rev. Cancer* **9**:445.
- Curti, A. *et al.* (2009) *Blood* **113**:2394.

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