Human Indoleamine 2,3-dioxygenase/IDO Antibody

Monoclonal Mouse IgG_1 Clone # 700826

Catalog Number: MAB104981

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Indoleamine 2,3-dioxygenase/IDO in direct ELISAs.
Source	Monoclonal Mouse IgG_1 Clone # 700826
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human Indoleamine 2,3-dioxygenase/IDO Ala2-Gly403 Accession # P14902
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

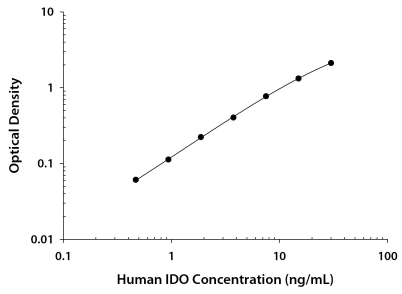
APPLICATIONS

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.*

ELISA	This antibody functions as an ELISA detection antibody when paired with Mouse Anti-Human Indoleamine 2,3-dioxygenase/IDO Monoclonal Antibody (Catalog # MAB10498). This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Human Indoleamine 2,3-dioxygenase/IDO DuoSet ELISA Kit (Catalog # DY6030-05) for convenient development of a sandwich ELISA.

DATA

ELISA



Human Indoleamine 2,3-dioxygenase/IDO ELISA Standard Curve. Recombinant Human Indoleamine 2,3-dioxygenase/IDO protein was serially diluted 2-fold and captured by Mouse Anti-Human Indoleamine 2,3-dioxygenase/IDO Monoclonal Antibody (Catalog # MAB10498) coated on a Clear Polystyrene Microplate (Catalog # DY990). Mouse Anti-Human Indoleamine 2,3-dioxygenase/IDO Monoclonal Antibody (Catalog # Catalog # MAB104981) was biotinylated and incubated with the protein captured on the plate. Detection of the standard curve was achieved by incubating Streptavidin-HRP (Catalog # DY998) followed by Substrate Solution (Catalog # DY999) and stopping the enzymatic reaction with Stop Solution (Catalog # DY994).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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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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