Human Indoleamine 2,3-dioxygenase/IDO Antibody

Monoclonal Mouse IgG_1 Clone # 998743

Catalog Number: MAB60301

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Indoleamine 2,3-dioxygenase/IDO in direct ELISAs.
Source	Monoclonal Mouse IgG_1 Clone # 998743
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.

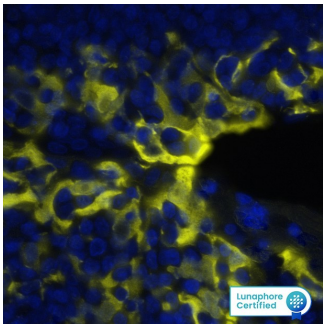
APPLICATIONS

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.*

	Recommended Concentration	Sample
Multiplex Immunofluorescence	1 µg/mL	Immersion fixed paraffin-embedded sections of human Tonsil tissue
Immunohistochemistry	1-25 µg/mL	See Below

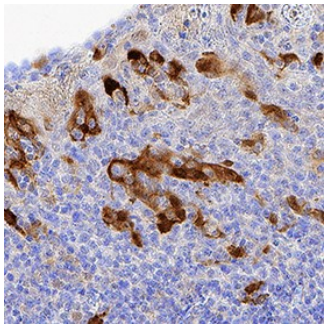
DATA

Multiplex Immunofluorescence



Detection of IDO1 in Human Tonsil via seqIF™ staining on COMET™ IDO1 Antibody was detected in immersion fixed paraffin-embedded sections of human Tonsil using Mouse Anti-Human IDO1, Monoclonal Antibody (Catalog # MAB60301) at 1ug/mL at 37 ° Celsius for 4 minutes. Before incubation with the primary antibody, tissue underwent an all-in-one dewaxing and antigen retrieval preprocessing using PreTreatment Module (PT Module) and Dewax and HIER Buffer H (pH 9; Epredia Catalog # TA-999-DHBH). Tissue was stained using the Alexa Fluor™ 555 Goat anti-Mouse IgG Secondary Antibody at 1:100 at 37 ° Celsius for 2 minutes. (Yellow; Lunaphore Catalog # DR555MS) and counterstained with DAPI (blue; Lunaphore Catalog # DR100). Specific staining was localized to the cytoplasm. Protocol available in COMET™ Panel Builder.

Immunohistochemistry



Indoleamine 2,3-dioxygenase/IDO in Human Tonsil. Indoleamine 2,3-dioxygenase/IDO was detected in immersion fixed paraffin-embedded sections of human tonsil using Mouse Anti-Human Indoleamine 2,3-dioxygenase/IDO Monoclonal Antibody (Catalog # MAB60301) at 1.7 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Rabbit IgG VisUCyte™ HRP Polymer Antibody (Catalog # Catalog # VC003). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to lymphocytes. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
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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