

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Indoleamine 2,3-dioxygenase/IDO in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 998743
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Indoleamine 2,3-dioxygenase/IDO Ala2-Gly403 Accession # P14902
<b>Formulation</b>	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.

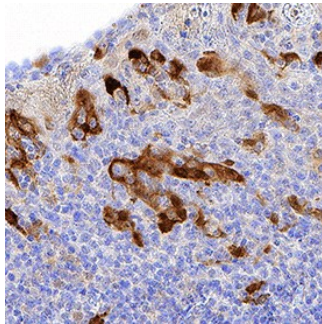
## APPLICATIONS

**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
<b>Immunohistochemistry</b>	1-25 µg/mL	See Below

## DATA

### 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 # VC003). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (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

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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.