

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IDO2 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 1001802
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Synthetic peptide containing human IDO2 Met1-Val407 Accession # Q6ZQW0
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.

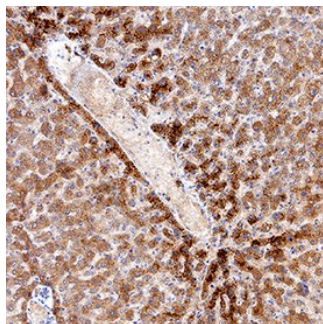
APPLICATIONS

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
Immunohistochemistry	5-25 µg/mL	See Below

DATA

Immunohistochemistry



IDO2 in Human Liver. IDO2 was detected in immersion fixed paraffin-embedded sections of human liver using Mouse Anti-Human IDO2 Monoclonal Antibody (Catalog # MAB10098) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). 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 cytoplasm in hepatocytes. 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.
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. <ul style="list-style-type: none"> • 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.

BACKGROUND

Indoleamine 2,3-dioxygenase (IDO2) is a 47 kDa heme-containing cytosolic dioxygenase. Human IDO2 shares 64% aa sequence identity with mouse IDO2. IDO2 is one of three dioxygenases capable of catalyzing the first and rate-limiting step of the L-kynurenine pathway (KP): oxidative cleavage of the essential amino acid L-tryptophan to form N formyl kynurenine (1). Of these proteins, IDO1 and IDO2 are both related, monomeric enzymes but share only 38% aa sequence identity. The IDO isoforms are not functionally redundant. Although expression of IDO2 has been upregulated in some cancers (2,3), IDO2 expression is generally restricted to the liver, kidney, brain, and certain immune cell types unlike the more ubiquitously expressed indoleamine 2,3-dioxygenase (IDO) (1). Differential inhibition of IDO1 and IDO2 is observed with several molecules (4,5). IDO2 has significantly lower tryptophan catabolic activity than IDO1 and IDO2 (4, 6-8) suggesting it does not play a significant physiological role in the KP. Instead, IDO2 may have an alternative functional role: either non-enzymatic or utilizing a more physiologically relevant substrate (5,7). IDO2 function operates as a pro-inflammatory mediator in autoimmune inflammatory disorders (8, 9-11). It is a candidate for co-therapeutic targeting for treatment in these diseases (10-11).

References:

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