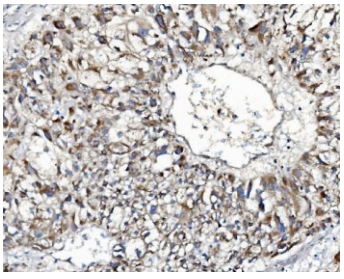
Indoleamine 2,3-Dioxygenase 2 Antibody / Tumor Immune Microenvironment Enzyme Antibody (RQ6383)

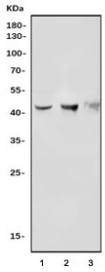
Catalog No.	Formulation	Size
RQ6383	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

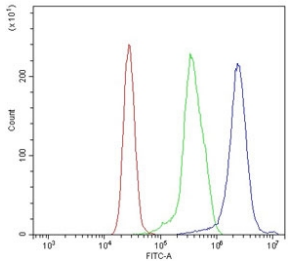
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Monkey
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q6ZQW0
Localization	Cytoplasmic
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This Indoleamine 2,3-Dioxygenase 2 Antibody / Tumor Immune Microenvironment Enzyme Antibody is available for research use only.



Indoleamine 2,3-Dioxygenase 2 Antibody Liver Cancer IHC. Immunohistochemistry analysis of FFPE human liver carcinoma tissue using Indoleamine 2,3-Dioxygenase 2 Antibody shows cytoplasmic staining in tumor cells with heterogeneous intensity across the tumor field, consistent with IDO2 / INDOL1 localization as a tryptophan metabolism enzyme. The staining is observed within tumor epithelial regions and surrounding microenvironmental cells, supporting involvement in tumor-associated immune regulation. Hematoxylin counterstain provides nuclear contrast and tissue architecture. HIER: boil FFPE tissue sections in pH 8 EDTA for 20 min and allow to cool before testing.



Indoleamine 2,3-Dioxygenase 2 Antibody Multi-Species WB. Western blot analysis of 1) rat liver, 2) mouse liver, and 3) monkey kidney tissue lysates using Indoleamine 2,3-Dioxygenase 2 Antibody detects a band at approximately 47 kDa, consistent with the expected molecular weight of IDO2 / INDOL1. The banding pattern across multiple species supports detection of this tryptophan metabolism enzyme, aligning with its role in kynurenine pathway activity and immune-associated metabolic regulation.



Indoleamine 2,3-Dioxygenase 2 Antibody K562 Cell FACS. Flow cytometry analysis of human K562 cells using Indoleamine 2,3-Dioxygenase 2 Antibody shows a clear rightward shift of the blue histogram relative to the isotype control (green) and unstained cells (red), indicating detection of IDO2 / INDOL1 expression. The intracellular signal distribution supports specific antibody binding to this tryptophan metabolism enzyme involved in immune-associated metabolic regulation.

Description

Indoleamine 2,3-dioxygenase 2 (IDO2), also known as INDOL1, is a cytosolic enzyme that catalyzes the oxidative metabolism of tryptophan through the kynurenine pathway. Indoleamine 2,3-Dioxygenase 2 Antibody / Tumor Immune Microenvironment Enzyme Antibody is designed for studies focused on immune regulation within tumor and inflammatory tissue contexts. IDO2 is encoded on chromosome 8p11 and functions alongside related enzymes such as IDO1 to regulate local tryptophan availability and downstream metabolite production.

The Indoleamine 2,3-dioxygenase 2 antibody, also referred to as IDO2 antibody and INDOL1 antibody in the literature, recognizes a protein localized primarily in the cytoplasm of epithelial and immune-associated cells. Through depletion of tryptophan and generation of kynurenine metabolites, IDO2 contributes to modulation of immune cell activity, including suppression of T cell responses and promotion of immune tolerance. These effects are particularly relevant within the tumor microenvironment, where metabolic reprogramming plays a central role in immune evasion.

This Indoleamine 2,3-Dioxygenase 2 Antibody / Tumor Immune Microenvironment Enzyme Antibody is uniquely positioned for studies of tumor-associated immune regulation. IDO2 expression has been observed in cancer cells and stromal components, where it may contribute to shaping the immune landscape by altering nutrient availability and signaling pathways. In immunohistochemistry, IDO2 is typically observed as cytoplasmic staining in tumor epithelial cells and surrounding microenvironmental elements, reflecting its enzymatic role in intracellular metabolic processes.

The kynurenine pathway has emerged as a critical regulator of immune suppression in cancer, with enzymes such as IDO2 influencing both innate and adaptive immune responses. By regulating tryptophan metabolism, IDO2 participates in pathways that affect T cell proliferation, dendritic cell function, and inflammatory signaling. These roles make IDO2 a relevant marker for studying tumor-immune interactions and metabolic adaptation in disease contexts.

In addition to cancer, IDO2 is implicated in chronic inflammation and immune-related disorders, where dysregulated tryptophan metabolism contributes to altered immune responses. Detection of IDO2 expression can therefore support investigation of both tumor biology and broader immune regulatory mechanisms.

This Indoleamine 2,3-Dioxygenase 2 Antibody / Tumor Immune Microenvironment Enzyme Antibody is suitable for detecting IDO2 / INDOL1 expression in research applications focused on tumor immunology, metabolic regulation, and immune signaling pathways. It supports detailed evaluation of immune microenvironment dynamics and disease-associated metabolic changes.

This antibody supports investigation of tumor immune microenvironment regulation, tryptophan metabolism, and immune

signaling pathways involving IDO2 / INDOL1.

This antibody can be compared with our IDO2 Antibody (clone IDO2/2640) for consistent detection of IDO2 across tryptophan metabolism and immune regulatory studies.

Application Notes

Optimal dilution of the Indoleamine 2,3-Dioxygenase 2 Antibody / Tumor Immune Microenvironment Enzyme Antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids M1-R357) was used as the immunogen for the Indoleamine 2,3-dioxygenase 2 antibody.

Storage

After reconstitution, the Indoleamine 2,3-dioxygenase 2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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