Human IDO2 Alexa Fluor® 750-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 1001802

Catalog Number: FAB10098S

100 µg

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
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.*

Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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 TDO2 (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).

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