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Certificate of Analysis and Data Sheet

MOUSE ANTI HUMAN INDOLAMINE 2,3-DIOXYGENASE (IDO)

With HRP-conjugated secondary antibody

Catalog No.
DS-MB-01673

Species:
Human

Isotype:
Mouse IgG3

Description

Indoleamine 2,3-dioxygenase (IDO) is an IFN- γ inducible 42 kDa enzyme that catalyzes the degradation of the essential amino acid L-tryptophan to N-formylkynurenine. The gene encoding human IDO maps to chromosome 8p12-p11. IDO, also known as INDO, is an important modulator of immunological responses and protects allogeneic concepti from alloreactive maternal lymphocytes. IDO mediates an interesting inhibitory effect of HeLa cells co-cultured with human PBLs. The ILN-2-induced proliferation response of PBLs is diminished in the presence of HeLa cells while an IDO inhibitor negates this effect. Flow cytometric analysis indicates both mature and immature CD123-positive dendritic cells suppress T cell activity using IDO. IDO-transfected cells co-cultured with T cells reduce T cell proliferation. Additionally, adopted transfer of donor T cells reduces donor T cell numbers in IDO-transgenic mice. The pharmacological or genetic manipulation of IDO may be useful for suppressing undesirable T cell response.

Applications

Table Summary of antibody applications and working conditions

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA			•	
Western Blotting	•			
Immunohistology - frozen	•			
Immunohistology - paraffin			•	
Immunohistology - resin			•	
Immunoprecipitation			•	
Flow Cytometry			•	
Immunofluorescence staining			•	
Neutralization			•	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.



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Preparation

Immunogen was Peptide corresponding to amino acids 78-184 of human IDO fused to GST. This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with the immunogen. The IgG fraction of tissue culture supernatant was purified by Protein G affinity chromatography.

Specificity

DS-MB-01673 recognizes Indoleamine-pyrrole 2,3-dioxygenase (IDO), an enzyme responsible for the catabolism of tryptophan to N-formylkynurenine and kynurenine. With the exception of tryptophan oxidase in hepatocytes, IDO is the only enzyme that degrades the amino acid tryptophan to kynurenine. Chlamydial pathogens require tryptophan for growth. IDO can lower available tryptophan in target cells leading to conversion of the pathogen to persistent forms, with significance in the progression to chronic infection with its associated pathological effects.

Reconstitution

Supplied as 100 µg of purified antibody. It is reconstituted with 100 µl of sterile PBS. Its final concentration is 1.0 mg/ml. **Please avoid freeze-thaw cycles.**

Secondary Antibody Applications

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blot)	•			1:5000-1:10000

Storage

Store at -20°C, if not intended for use within a month. Keep it at 4°C and minimize freezing and thawing when use.

Reference

Sakash, J.B. *et al.* (2002) Cytokines induce indoleamine 2,3-dioxygenase expression in human atheroma-associated cells: implications for persistent *Chlamydia pneumoniae* infection. *Infect Immun.* 70: 3959 - 3961.

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