

Phone: 888-466-3604 Fax: 925-215-2184 Email: boster@bosterbio.com Web: www.bosterbio.com

Polyclonal Anti-IDO1 Antibody

Catalog Number: PA1611

Description

Gene Name	indoleamine 2,3-dioxygenase 1			
Recommended Protein Name	Indoleamine 2,3-dioxygenase 1			
Lot No.	0161212c011131			
Size	100µg/vial			
Form	lyophilized			
lg type	Rabbit IgG			
Specificity	No cross reactivity with other proteins.			
Purification	Immunogen affinity purified.			
Species	Reacts with: human			
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human IDO1(1-20aa MAHAMENSWTISKEYHIDEE).			
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na $_2$ HPO $_4$, 0.05mg Thimerosal, 0.05mg NaN $_3$.			

Application

	Concentration	Tested Species	Predicted Species	Antigen Retrieval
Western blot	0.1-0.5µg/ml	Hu	-	-

Tested Species: In-house tested species with positive results.

Predicted Species: Species predicted to be fit for the product based on sequence similarities.

Other applications have not been tested.

Optimal dilutions should be determined by end users.

Preparation and storage

Reconstitution: 0.2ml of distilled water will yield a concentration of 500µg/ml.

Storage: At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time.

Avoid repeated freezing and thawing.

Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB.

Background

IDO1(INDOLEAMINE 2,3-DIOXYGENASE), INDO or IDO, is an immunomodulatory enzyme produced by some alternatively activated macrophages and other immunoregulatory cells. This enzyme catalyzes the degradation of the essential amino acid L-tryptophan to N-formyl-kynurenine. By fluorescence in situ hybridization, the assignment is narrowed to chromosome 8p12-p11. INDO Interferon-gamma has an antiproliferative effect on many tumor cells and inhibits intracellular pathogens such as Toxoplasma and chlamydia, at least partly because of the induction of indoleamine 2,3-dioxygenase. During inflammation, IDO is upregulated in dendritic cells and phagocytes by proinflammatory stimuli, most notably IFNG, and the enzyme then uses superoxide as a 'cofactor' for oxidative cleavage of the indole ring of tryptophan, yielding an intermediate that deformylates to L-kynurenine.

Reference

- 1. Burkin, D. J., Kimbro, K. S., Barr, B. L., Jones, C., Taylor, M. W., Gupta, S. L. Localization of the human indoleamine 2,3-dioxygenase (IDO) gene to the pericentromeric region of human chromosome 8. Genomics 17: 262-263, 1993.
- 2. Dai, W., Gupta, S. L. Molecular cloning, sequencing and expression of human interferon-gamma-inducible indoleamine 2,3-dioxygenase cDNA. Biochem. Biophys. Res. Commun. 168: 1-8, 1990.
- Fallarino, F., Grohmann, U., Hwang, K. W., Orabona, C., Vacca, C., Bianchi, R., Belladonna, M. L., Fioretti, M. C., Alegre, M.-L., Puccetti, P. Modulation of tryptophan catabolism by regulatory T cells. Nature Immun. 4: 1206-1212, 2003.