

# IDO (H-110): sc-25808

## BACKGROUND

Indoleamine 2,3-dioxygenase (IDO) is an IFN- $\gamma$  inducible enzyme that catalyzes the degradation of the essential amino acid L-tryptophan to N-formylkynurenine. The gene encoding human IDO maps to chromosome 8p11.21. 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 reduces 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.

## CHROMOSOMAL LOCATION

Genetic locus: IDO1 (human) mapping to 8p11.21.

## SOURCE

IDO (H-110) is a rabbit polyclonal antibody raised against amino acids 271-380 of IDO of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

IDO (H-110) is recommended for detection of IDO of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IDO siRNA (h): sc-45939, IDO shRNA Plasmid (h): sc-45939-SH and IDO shRNA (h) Lentiviral Particles: sc-45939-V.

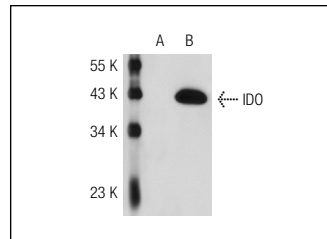
Molecular Weight of IDO: 42 kDa.

Positive Controls: IDO (h): 293T Lysate: sc-114136 or HeLa whole cell lysate: sc-2200.

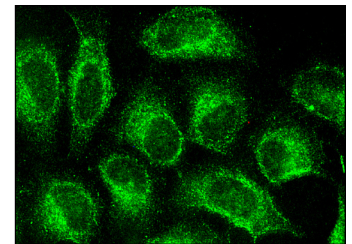
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



IDO (H-110): sc-25808. Western blot analysis of IDO expression in non-transfected: sc-117752 (A) and human IDO transfected: sc-114136 (B) 293T whole cell lysates.



IDO (H-110): sc-25808. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

- Chen, W., et al. 2008. The indoleamine 2,3-dioxygenase pathway is essential for human plasmacytoid dendritic cell-induced adaptive T regulatory cell generation. *J. Immunol.* 181: 5396-5404.
- Rödel, J., et al. 2012. Persistent *Chlamydia trachomatis* infection of HeLa cells mediates apoptosis resistance through a *Chlamydia* protease-like activity factor-independent mechanism and induces high mobility group box 1 release. *Infect. Immun.* 80: 195-205.
- Lewkowicz, N., et al. 2012. Neutrophil-CD4<sup>+</sup>CD25<sup>+</sup> T regulatory cell interactions: a possible new mechanism of infectious tolerance. *Immunobiology* 218: 455-464.
- Moura, D.F., et al. 2012. CD163 favors *Mycobacterium leprae* survival and persistence by promoting anti-inflammatory pathways in lepromatous macrophages. *Eur. J. Immunol.* 42: 2925-2936.
- Hsu, W.T., et al. 2013. Prostaglandin E2 potentiates mesenchymal stem cell-induced IL-10 + IFN- $\gamma$  + CD4<sup>+</sup> regulatory T cells to control transplant arteriosclerosis. *J. Immunol.* 190: 2372-2380.


 MONOS  
Satisfaction  
Guaranteed

Try **IDO (mIDO-48): sc-53978** or **IDO (E-11): sc-365517**, our highly recommended monoclonal alternatives to IDO (H-110). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **IDO (mIDO-48): sc-53978**.