SANTA CRUZ BIOTECHNOLOGY, INC.

IDO (E-7): sc-365086

BACKGROUND

Indoleamine 2,3-dioxygenase (IDO) is an IFN-γ 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 inhbitor negates this effect. Flow cytometric analysis indicates both mature and immautre CD123-positive Dentritic 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 supressing undesirable T cell response.

CHROMOSOMAL LOCATION

Genetic locus: IDO1 (human) mapping to 8p11.21; Ido1 (mouse) mapping to 8 A2.

SOURCE

IDO (E-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 11-35 near the N-terminus of IDO of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365086 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

IDO (E-7) is recommended for detection of IDO of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 siRNA (m): sc-41530, IDO shRNA Plasmid (h): sc-45939-SH, IDO shRNA Plasmid (m): sc-41530-SH, IDO shRNA (h) Lentiviral Particles: sc-45939-V and IDO shRNA (m) Lentiviral Particles: sc-41530-V.

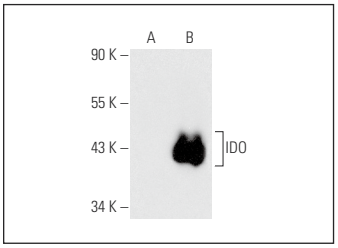
Molecular Weight of IDO: 42 kDa.

Positive Controls: IDO (m): 293T Lysate: sc-120945, HeLa whole cell lysate: sc-2200 or RAW 264.7 + IFN-γ cell lysate: sc-2259.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



IDO (E-7): sc-365086. Western blot analysis of IDO expression in non-transfected: sc-117752 (**A**) and mouse IDO transfected: sc-120945 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Huang, L., et al. 2013. Induction and role of indoleamine 2,3 dioxygenase in mouse models of Influenza A Virus infection. PLoS ONE 8: e66546.
2. Duan, R.N., et al. 2021. Smek1 deficiency exacerbates experimental autoimmune encephalomyelitis by activating proinflammatory microglia and suppressing the IDO1-AhR pathway. J. Neuroinflammation 18: 145.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CONJUGATES

See **IDO (mIDO-48): sc-53978** for IDO antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.