Datasheet for ABIN366544

IDO1 ELISA Kit

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Overview

Quantity:	96 tests
Target:	IDO1
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	0.78-50 ng/mL
Minimum Detection Limit:	0.78 ng/mL
Application:	ELISA

Product Details

Purpose:	This immunoassay kit allows for the in vitro quantitative determination of human IDO concentrations in cell culture supernates, serum, plasma and other biological fluids.
Sample Type:	Serum, Plasma, Tissue Homogenate, Cell Lysate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	This assay recognizes recombinant and natural human IDO.
Cross-Reactivity (Details):	Limited by current skills and knowledge, it is impossible for us to complete the cross-reactivity detection between the target antigen and all analogues for other species. Therefore, cross reaction may still exist.
Sensitivity:	0.195 ng/mL
Components:	• Assay plate (12 × 8 coated Microwells)

Product Details

- Standard (freeze dried)
- Biotin-antibody (100 × concentrate)
- HRP-avidin (100 × concentrate)
- Biotin-antibody Diluent
- HRP-avidin Diluent
- Sample Diluent
- Wash Buffer (25 × concentrate)
- TMB Substrate
- Stop Solution
- Adhesive Strip (for 96 wells)
- Instruction manual

Target Details

Target:	IDO1
Alternative Name:	indoleamine 2,3-dioxygenase 1 (IDO1 Products)
Background:	Synonyms: CD107B, IDO, INDO, indole 2,3-dioxygenase|indoleamine-pyrrole 2,3 dioxygenase
UniProt:	P14902
Pathways:	Activated T Cell Proliferation

Application Details

Application Notes:

- The supplier is only responsible for the kit itself, but not for the samples consumed during the assay. The user should calculate the possible amount of the samples used in the whole test. Please reserve sufficient samples in advance.
- Samples to be used within 5 days may be stored at 2-8°C, otherwise samples must be stored at -20°C (≤ 1 month) or -80°C (≤ 2 months) to avoid loss of bioactivity and contamination.
- Grossly hemolyzed samples are not suitable for use in this assay.
- If the samples are not indicated in the manual, a preliminary experiment to determine the validity of the kit is necessary.
- Please predict the concentration before assaying. If values for these are not within the range of the standard curve, users must determine the optimal sample dilutions for their particular experiments.
- Tissue or cell extraction samples prepared by chemical lysis buffer may cause unexpected ELISA results due to the impacts of certain chemicals.
- Owing to the possibility of mismatching between antigens from another resource and antibodies used in this supplier's kits (e.g., antibody targets conformational epitope rather than linear epitope), some native or recombinant proteins from other manufacturers may not be recognized by this supplier's products.
- Influenced by factors including cell viability, cell number and cell sampling time, samples

	from cell culture supernatant may not be recognized by the kit. • Fresh samples without long time storage are recommended for the test. Otherwise, protein degradation and denaturalization may occur in those samples and finally lead to wrong results.
Comment:	Detection wavelength: 450 nm Information on standard material: Depending on the antigen to be detected, standards can be either native or recombinant protein. The recombinant proteins are being expressed in CHO cells in most cases. Please inquire for more information. The formulation of auxiliary material in the standard is considered proprietary information, however it does not contain any poisonous substance. Proclin 300 (1:3000) is used as preservative. Information on reagents: In most cases the stop solution provided is 1 N H2SO4. The formulation of wash solution is proprietary information. None of the components contain (sodium) azide, thimerosal, 2-mercaptoethanol (2-ME) or any other poisonous materials. For the sandwich method kits, the sample diluent, antibody diluent, enzyme diluent and standard all contain BSA. Information on antibodies: The antibodies provided in different kits vary in regards to clonality and host. Some antibodies are affinity purified, some are Protein A
Sample Volume:	100 µL
Assay Time:	1 - 4.5 h
Plate:	Pre-coated
Protocol:	The microtiter plate provided in this kit has been pre-coated with an antibody specific to IDO. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific for IDO and Avidin conjugated to Horseradish Peroxidase (HRP) is added to 3 each microplate well and incubated. Then a TMB (3,3',5,5' tetramethyl-benzidine) substrate solution is added to each well. Only those wells that contain IDO, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of a sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450 nm ± 2 nm. The concentration of IDO in the samples is then determined by comparing the O.D. of the samples

Application Details

	to the standard curve.
Assay Precision:	Intra-assay precision (precision within an assay): Three samples of known concentration were tested twenty times on one plate to assess precision. Inter-assay precision (precision between assays): Three samples of known concentration were tested in twenty assays to assess precision. • Intra-assay: CV% less than 8% • Inter-assay: CV% less than 10%
Restrictions:	For Research Use only

Handling

Precaution of Use:	The Stop Solution provided with this kit is an acid solution. Wear eye, hand, face and clothing protection when using this material.
Handling Advice:	• The kit should not be used beyond the expiration date on the kit label. • Do not mix or substitute reagents with those from other lots or sources. • If samples generate values higher than the highest standard, dilute the samples with Sample Diluent and repeat the assay. • Any variation in Sample Diluent, operator, pipetting technique, washing technique, incubation time/temperature and kit age can cause variation in binding. • This assay is designed to eliminate interference by soluble receptors, binding proteins and other factors present in biological samples. Until all factors have been tested in the Immunoassay, the possibility of interference cannot be excluded.
Storage:	4 °C/-20 °C
Storage Comment:	For unopened kit: All the reagents should be kept according to the labels on vials.
Expiry Date:	6 months

Publications

Product cited in:	Zoga, Oulis, Chatzipanagiotou, Masdrakis, Pliatsika, Boufidou, Foteli, Soldatos, Nikolaou, Papageorgiou: "Indoleamine 2,3-dioxygenase and immune changes under antidepressive treatment in major depression in females." in: **In vivo (Athens, Greece)**, Vol. 28, Issue 4, pp. 633-8, (2015) (PubMed). Bao, Ji, Zhao, Ma, Xie, Na: "Serum levels and activity of indoleamine2,3-dioxygenase and tryptophanyl-tRNA synthetase and their association with disease severity in patients with chronic kidney disease." in: **Biomarkers : biochemical indicators of exposure, response, and**

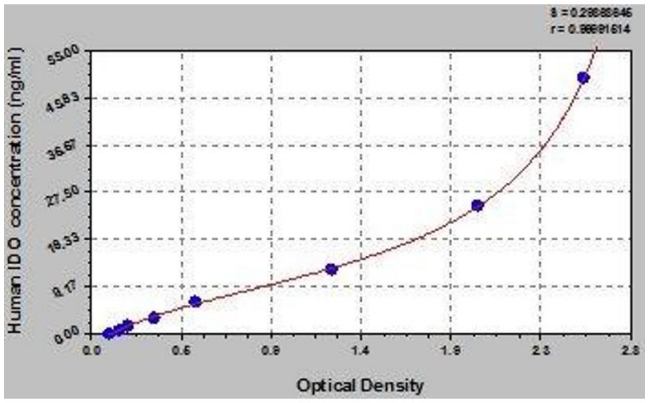
susceptibility to chemicals, Vol. 18, Issue 5, pp. 379-85, (2013) (PubMed).

Eleftheriadis, Antoniadi, Liakopoulos, Stefanidis, Galaktidou: "Plasma indoleamine 2,3-dioxygenase concentration is increased in hemodialysis patients and may contribute to the pathogenesis of coronary heart disease." in: **Renal failure**, Vol. 34, Issue 1, pp. 68-72, (2012) (PubMed).

Eleftheriadis, Yiannaki, Antoniadi, Liakopoulos, Pissas, Galaktidou, Stefanidis: "Plasma indoleamine 2,3-dioxygenase and arginase type I may contribute to decreased blood T-cell count in hemodialysis patients." in: **Renal failure**, Vol. 34, Issue 9, pp. 1118-22, (2012) (PubMed).

Eleftheriadis, Liakopoulos, Antoniadi, Stefanidis, Galaktidou: "Indoleamine 2,3-dioxygenase is increased in hemodialysis patients and affects immune response to hepatitis B vaccination." in: **Vaccine**, Vol. 29, Issue 12, pp. 2242-7, (2011) (PubMed).

Images



ELISA

Image 1. Typical standard curve