

Product datasheet

Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374] α b211017

KO VALIDATED Recombinant RabMAb

★★★★★ [1 Abreviews](#) [12 References](#) [12 Images](#)

Overview

Product name	Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374]
Description	Rabbit monoclonal [EPR20374] to Indoleamine 2, 3-dioxygenase
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), WB, ICC/IF, IP, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Recombinant full length protein. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Wild-type A549 Treated IFN gamma, Human ovary cancer, placenta and tonsil lysates; SK-OV-3 whole cell lysate; HeLa whole cell lysate treated with 50ng/ml Interferon-gamma (IFN-gamma) for 16 hours. IHC-P: Human spleen, tonsil, placenta and endometrium cancer tissues. ICC/IF: HeLa cells treated with IFN-gamma (50 ng/ml) for 16 hours. Flow Cyt (intra): HeLa cells treated with IFN-gamma (50 ng/ml) for 16 hours. IP: HeLa whole cell lysate treated with 50ng/ml IFN-gamma for 16h.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20374
Isotype	IgG

Applications

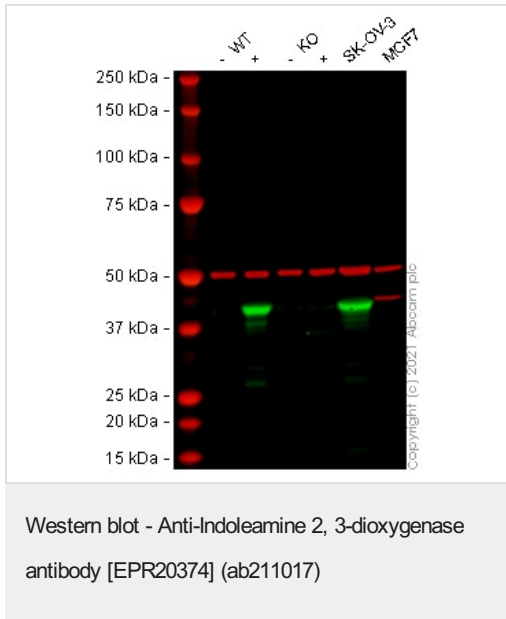
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab211017 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/500. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB	★★★★★ (1)	1/1000. Detects a band of approximately 45 kDa (predicted molecular weight: 45 kDa).
ICC/IF		1/2000.
IP		1/40.
IHC-P		1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

Function	Catalyzes the cleavage of the pyrrol ring of tryptophan and incorporates both atoms of a molecule of oxygen.
Pathway	Amino-acid degradation; L-tryptophan degradation via kynurenine pathway; L-kynurenine from L-tryptophan: step 1/2.
Sequence similarities	Belongs to the indoleamine 2,3-dioxygenase family.

Images



All lanes : Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374] (ab211017) at 1/1000 dilution

Lane 1 : Wild-type A549 Vehicle Control IFN gamma (0 ng/ml, 48 h) cell lysate

Lane 2 : Wild-type A549 Treated IFN gamma (25 ng/ml, 48 h) cell lysate

Lane 3 : IDO1 knockout A549 Vehicle Control IFN gamma (0 ng/ml, 48 h) cell lysate

Lane 4 : IDO1 knockout A549 Treated IFN gamma (25 ng/ml, 48 h) cell lysate

Lane 5 : SK-OV-3 cell lysate

Lane 6 : MCF7 cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

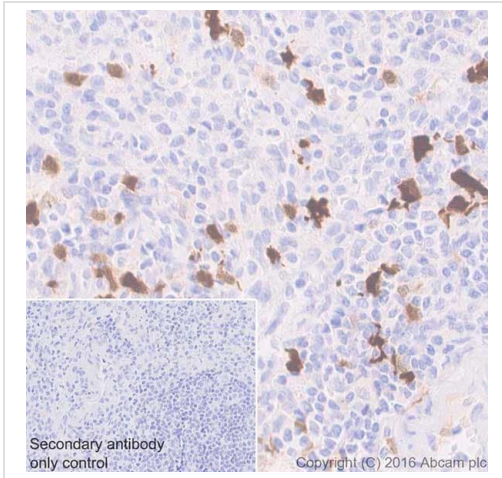
Predicted band size: 45 kDa

Observed band size: 40 kDa

Lanes 1 - 6: Merged signal (red and green). Green - ab211017 observed at 40 kDa. Red - loading control **ab7291** (Mouse anti-Alpha Tubulin [DM1A]) observed at 55 kDa.

ab211017 was shown to react with Indoleamine 2, 3-dioxygenase in treated wild-type A549 cells in Western blot with no signal observed in treated IDO1 knockout cell line **ab266949** (IDO1 knockout cell lysate **ab256948**). Wild-type A549 and IDO1 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween®) before incubation with ab211017 and **ab7291** (Mouse anti-Alpha Tubulin [DM1A]) overnight at 4 °C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW)

preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 h at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374] ([ab211017](#))

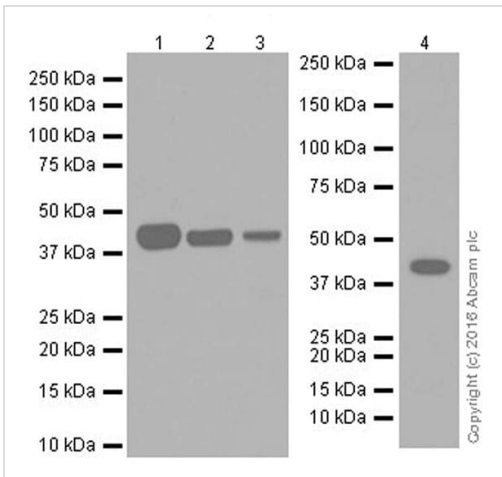
Immunohistochemical analysis of paraffin-embedded human spleen tissue labeling Indoleamine 2, 3-dioxygenase with [ab211017](#) at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Cytoplasmic and nuclear staining on dendritic cells of human spleen is observed (PMID: 21328335, PMID: 25271151).

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374] ([ab211017](#))

All lanes : Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374] ([ab211017](#)) at 1/1000 dilution

Lane 1 : Human ovary cancer lysate at 20 µg

Lane 2 : Human placenta lysate at 20 µg

Lane 3 : Human tonsil lysate at 20 µg

Lane 4 : SK-OV-3 (Human ovarian cancer cell line) whole cell lysate at 10 µg

Secondary

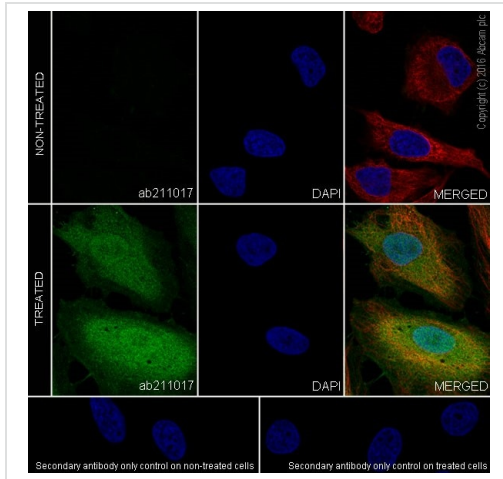
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Predicted band size: 45 kDa

Observed band size: 45 kDa

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure time: Lane 1-3: 3 minutes; Lane 4: 15 seconds.



Immunocytochemistry/ Immunofluorescence - Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374] (ab211017)

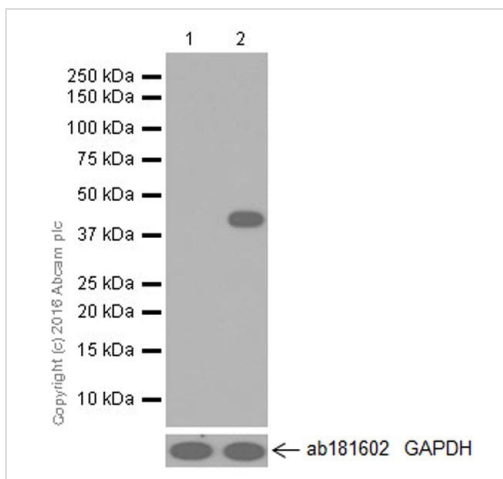
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cell line from cervix adenocarcinoma) cells, treated with 50ng/ml IFN- γ for 16 hours or untreated, labeling Indoleamine 2, 3-dioxygenase with ab211017 at 1/2000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor[®] 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green).

The signal increased after treatment with IFN- γ (50 ng/ml) for 16 hours on HeLa cells.

The nuclear counterstain is DAPI (blue).

Tubulin is detected with [ab195889](#) (Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor[®] 594)) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor[®] 488) ([ab150077](#)) at 1/1000 dilution.



Western blot - Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374] (ab211017)

All lanes : Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374] (ab211017) at 1/1000 dilution

Lane 1 : Untreated HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lane 2 : HeLa whole cell lysate treated with 50ng/ml Interferon-gamma (IFN-gamma, [ab51240](#)) for 16 hours

Lysates/proteins at 10 μ g per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

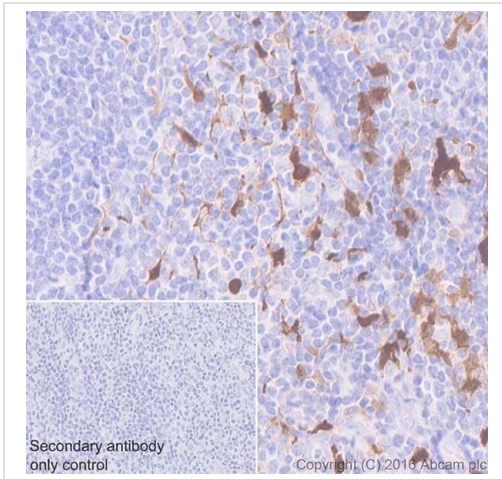
Predicted band size: 45 kDa

Observed band size: 45 kDa

Exposure time: 15 seconds

Blocking/Dilution buffer: 5% NFD/MTBST.

The level of Indoleamine 2, 3-dioxygenase expression can be induced by IFN- γ treatment (PMID 16368976).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374] (ab211017)

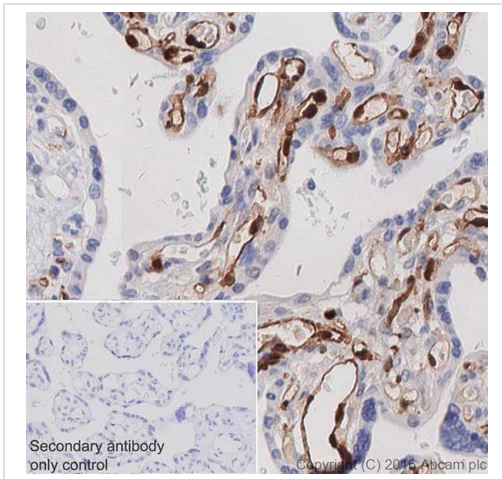
Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling Indoleamine 2, 3-dioxygenase with ab211017 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Cytoplasmic and nuclear staining on dendritic cells of human tonsil is observed (PMID: 21328335, PMID: 25271151).

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374] (ab211017)

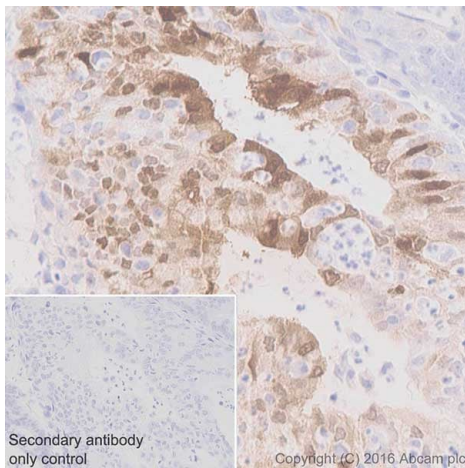
Immunohistochemical analysis of paraffin-embedded human placenta tissue labeling Indoleamine 2, 3-dioxygenase with ab211017 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Cytoplasmic and nuclear staining on endothelial cells of human placenta is observed (PMID: 21328335, PMID: 25271151).

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374] (ab211017)

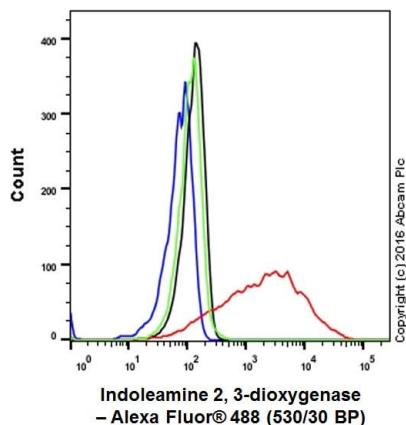
Immunohistochemical analysis of paraffin-embedded human endometrium cancer tissue labeling Indoleamine 2, 3-dioxygenase with ab211017 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Cytoplasmic and nuclear staining on human endometrium cancer is observed (PMID: 26155395).

Counter stained with Hematoxylin.

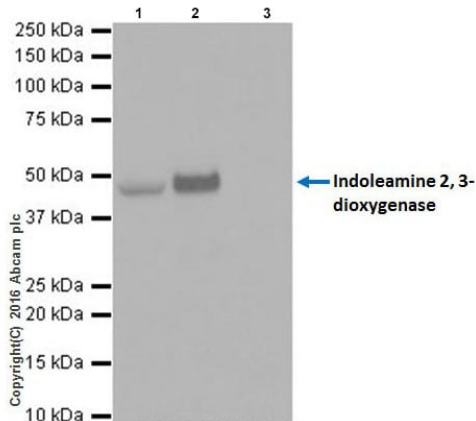
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374] (ab211017)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed HeLa (Human epithelial cell line from cervix adenocarcinoma) cells, treated with 50ng/ml IFN- γ for 16h (red) or untreated (green), labeling Indoleamine 2, 3-dioxygenase with ab211017 at 1/500 dilution compared with a rabbit monoclonal IgG isotype control (**ab172730**; black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (Alexa Fluor[®] 488) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374] (ab211017)

Indoleamine 2, 3-dioxygenase was immunoprecipitated from 0.35 mg of HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate treated with 50ng/ml IFN- γ for 16h with ab211017 at 1/40 dilution.

Western blot was performed from the immunoprecipitate using ab211017 at 1/1000 dilution.

VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10000 dilution.

Lane 1: HeLa treated with 50ng/ml IFN- γ for 16h whole cell lysate 10 μ g (Input).

Lane 2: ab211017 IP in HeLa treated with 50ng/ml IFN- γ for 16h whole cell lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab211017 in HeLa treated with 50ng/ml IFN- γ for 16h whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDm/TBST.


Exposure time: 1 second.

Tissue Microarray (TMA) data for ab211017			
Normal tissue samples		Malignant tissue samples	
Human cardiac muscle	x	Human placenta (stromal cells ✓)	Clear cell carcinoma of human kidney (stromal cells ✓)
Human cerebrum	x	Human skeletal muscle (stromal cells ✓)	Human glioma
Human colon	x (stromal cells ✓)	Human skin	Human bladder cancer (stromal cells ✓)
Human endometrium	✓	Human spleen	Human hepatocellular carcinoma
Human kidney	x	Human stomach (stromal cells ✓)	Human breast carcinoma
Human liver	x (stromal cells ✓)	Human testis	Human cervical carcinoma (stromal cells ✓)
Human lung	x	Human thyroid	Human colon carcinoma (stromal cells ✓)
Human mammary gland	x	Human tonsil	Human endometrial carcinoma
Human pancreas	x		Human gastic adenocarcinoma (stromal cells ✓)
			Human ovarian carcinoma (stromal cells ✓)
			Human pancreatic carcinoma (stromal cells ✓)
			Human prostatic hyperplasia (stromal cells ✓)
			Human thyroid carcinoma


Tissue Microarrays stained for "Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374]" using "ab211017" in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). The sections were incubated with ab211017 at +4°C overnight followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP polymer).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374] (ab211017)


Why choose a recombinant antibody?




Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Indoleamine 2, 3-dioxygenase antibody [EPR20374] (ab211017)

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