abcam

Product datasheet

Anti-HLA-DR antibody [EPR3692] ab92511

リコンビナント RabMAb

7 Abreviews 40 References 画像数 19

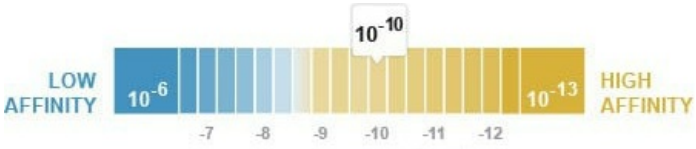
製品の概要

製品名	Anti-HLA-DR antibody [EPR3692]
製品の詳細	Rabbit monoclonal [EPR3692] to HLA-DR
由来種	Rabbit
特異性	Signal detected in rat sample is the ortholog of HLA.
アプリケーション	**適用あり:** WB, IHC-P, Flow Cyt (Intra), ICC/IF, mIHC **適用なし:** IP
種交差性	**交差種:** Rat, Human **非交差種:** Mouse
免疫原	Synthetic peptide within Human HLA-DR aa 150-250. The exact sequence is proprietary. Database link: **P01903**
ポジティブ・コントロール	WB: Raji, Human spleen and Hu T-78 cell lysates, Ramos whole cell lysate, Human tonsil tissue and HEK-293T cells transfected with a human HLA-DR expression vector containing a his-tag whole cell lysate. ICC/IF: HuT-78 cells. Flow Cyt (Intra): Raji cells. IHC-P: Human tonsil tissue, human skin tissue, human spleen tissue, liver vessels tissue, skin vessels tissue, endometrial carcinoma vessels tissue, human kidney tissue, rat spleen tissue and rat colon tissue. mIHC: Hu lung cancer tissue
特記事項	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Mouse: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

製品の特性

製品の状態	Liquid

保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
解離定数（K_D 値）	$K_D = 1.67 \times 10^{-10}$ M



Learn more about K_D

バッファー	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR3692
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee Abpromise保証は、次のテスト済みアプリケーションにおけるab92511の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		1/1000 - 1/10000. Predicted molecular weight: 29 kDa.
IHC-P	★★★★★ (4)	1/100 - 1/10000.
Flow Cyt (Intra)		1/50. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		1/250 - 1/500.
mIHC		1/200.

追加情報 Is unsuitable for IP.

ターゲット情報

機能 Binds peptides derived from antigens that access the endocytic route of antigen presenting cells (APC) and presents them on the cell surface for recognition by the CD4 T-cells. The peptide binding cleft accommodates peptides of 10-30 residues. The peptides presented by MHC class II molecules are generated mostly by degradation of proteins that access the endocytic route, where they are processed by lysosomal proteases and other hydrolases. Exogenous antigens that have been endocytosed by the APC are thus readily available for presentation via MHC II molecules, and for this reason this antigen presentation pathway is usually referred to as exogenous. As membrane proteins on their way to degradation in lysosomes as part of their normal turn-over are also contained in the endosomal/lysosomal compartments, exogenous

antigens must compete with those derived from endogenous components. Autophagy is also a source of endogenous peptides, autophagosomes constitutively fuse with MHC class II loading compartments. In addition to APCs, other cells of the gastrointestinal tract, such as epithelial cells, express MHC class II molecules and CD74 and act as APCs, which is an unusual trait of the GI tract. To produce a MHC class II molecule that presents an antigen, three MHC class II molecules (heterodimers of an alpha and a beta chain) associate with a CD74 trimer in the ER to form an heterononamer. Soon after the entry of this complex into the endosomal/lysosomal system where antigen processing occurs, CD74 undergoes a sequential degradation by various proteases, including CTSS and CTSL, leaving a small fragment termed CLIP (class-II-associated invariant chain peptide). The removal of CLIP is facilitated by HLA-DM via direct binding to the alpha-beta-CLIP complex so that CLIP is released. HLA-DM stabilizes MHC class II molecules until primary high affinity antigenic peptides are bound. The MHC II molecule bound to a peptide is then transported to the cell membrane surface. In B-cells, the interaction between HLA-DM and MHC class II molecules is regulated by HLA-DO. Primary dendritic cells (DCs) also to express HLA-DO. Lysosomal miroenvironment has been implicated in the regulation of antigen loading into MHC II molecules, increased acidification produces increased proteolysis and efficient peptide loading.

配列類似性

Belongs to the MHC class II family.
Contains 1 Ig-like C1-type (immunoglobulin-like) domain.

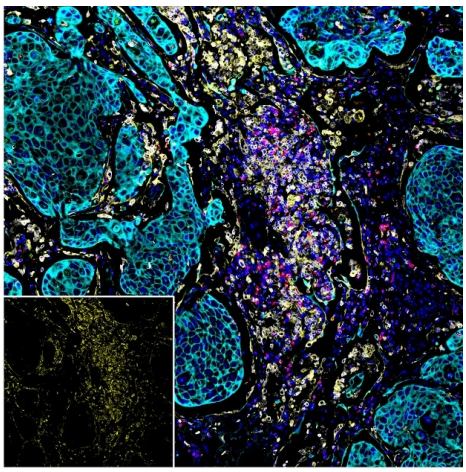
翻訳後修飾

Ubiquitinated by MARCH1 or MARCH8 at Lys-244 leading to down-regulation of MHC class II. When associated with ubiquitination of the beta subunit of HLA-DR: HLA-DRB4 'Lys-254', the down-regulation of MHC class II may be highly effective.

細胞内局在

Cell membrane. Endoplasmic reticulum membrane. Golgi apparatus > trans-Golgi network membrane. Endosome membrane. Lysosome membrane. Late endosome membrane. The MHC class II complex transits through a number of intracellular compartments in the endocytic pathway until it reaches the cell membrane for antigen presentation.

画像



Multiplex immunohistochemistry - Anti-HLA-DR antibody [EPR3692] (ab92511)

This image is courtesy of TissueGnostics Asia Pacific Limited

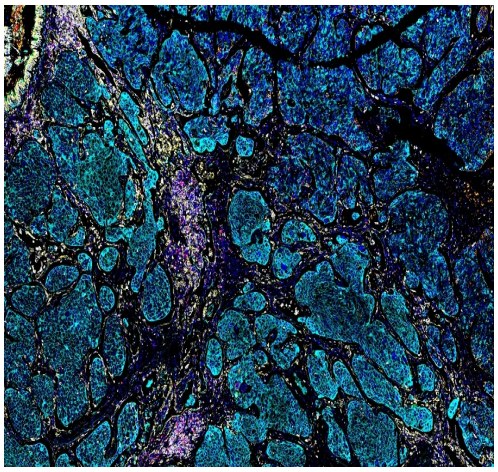
10-color fluorescence multiplex immunohistochemical analysis of human lung cancer tissue (formalin-fixed paraffin-embedded section).

Merged staining of anti-FOXP3 (**ab215206**; Cyan; TG540N), anti-PD1 (**ab52587**; Red; TG700N), anti-CD163 (**ab182422**; Brown; TG650N), anti-HLA-DR (**ab92511**; Yellow; TG570N), anti-CD4 (**ab133616**; Violet; TG620N), anti-CD8 alpha (**ab101500**; Purple; TG540S), anti-CD20 (**ab9475**; Grey; TG660S), anti-CD68 (**ab192847**; Green; TG520N), anti-Cytokeratin 19 (**ab52625**; Light blue; TG440N). TG470SN (dark blue) was used as a nuclear counter stain. The inset image shows the separate HLA-DR signal.

The section was incubated in nine rounds of staining; in the order of **ab215206** (1/100 dilution), **ab52587** (1/200 dilution), **ab182422** (1/300 dilution), **ab92511** (1/200 dilution), **ab133616** (1/600 dilution), **ab101500** (1/300 dilution), **ab9475** (1/100 dilution), **ab192847** (1/300 dilution), **ab52625** (1/400 dilution); each using a separate fluorescent tyramide signal amplification system.

Sodium citrate antigen retrieval (pH6.0) was used in between rounds of tyramide signal amplification to remove the antibody from the previous round, to avoid any cross-reactivity.

Image acquisition was performed with TissueFAXS Spectra (TissueGnostics).



Multiplex immunohistochemistry - Anti-HLA-DR antibody [EPR3692] (ab92511)

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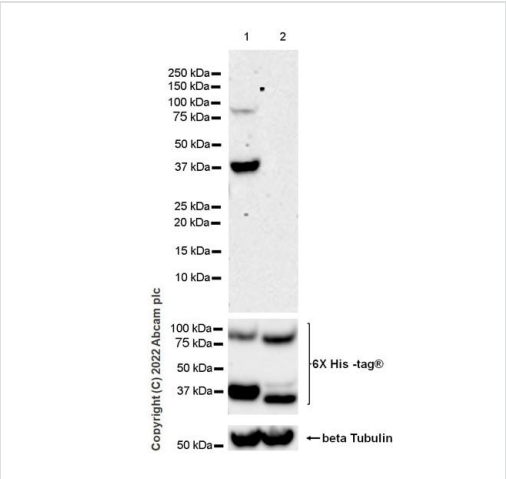


Western blot - Anti-HLA-DR antibody [EPR3692] (ab92511)

All lanes : Anti-HLA-DR antibody [EPR3692] (ab92511) at 1/1000 dilution

Lane 1 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) cells transfected with a human HLA-DR expression vector containing a his-tag, whole cell lysate
Lane 2 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) cells transfected with a human HLA-DOA expression vector containing a his-tag, whole cell lysate

Lysates/proteins at 20 µg per lane.

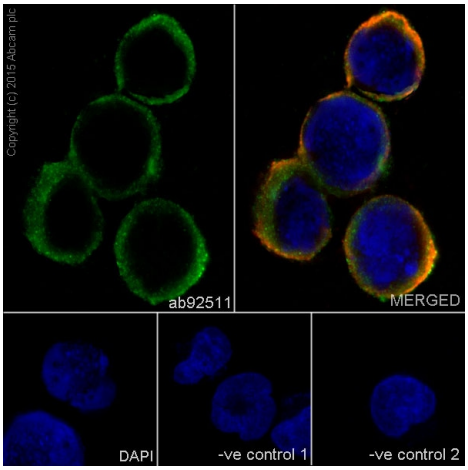
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 29 kDa
Observed band size: 37 kDa

Exposure time: 3 minutes

Blocking buffer and concentration : 5% NFDM/TBST
Diluting buffer and concentration : 5% NFDM/TBST

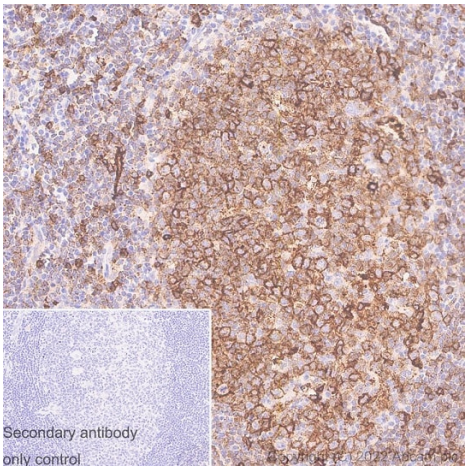
This antibody does not cross-react with human HLA-DOA.



Immunocytochemistry/ Immunofluorescence - Anti-HLA-DR antibody [EPR3692] (ab92511)

ab92511 staining HLA-DR in HuT-78 (human Sezary syndrome) cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody at a dilution of 1/250. A goat anti rabbit IgG (Alexa Fluor® 488) (**ab150077**) was used as the secondary antibody at a dilution of 1/1000. **ab7291** and **ab150120** were used as counterstains for primary antibody ab92511 and secondary antibody **ab150077** respectively and DAPI was used as a nuclear counterstain.

Negative control 1: Rabbit primary antibody and anti-mouse secondary antibody (**ab150120**)
Negative control 2: Mouse primary antibody (**ab7291**) and anti-rabbit secondary antibody (**ab150077**)

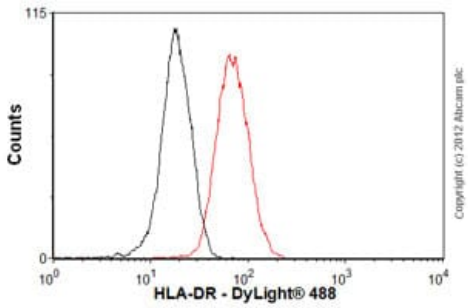


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HLA-DR antibody [EPR3692] (ab92511)

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labelling HLA-DR with ab92511 at 1/10000 dilution (0.07 µg/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) secondary antibody. Positive staining on human tonsil tissue. The section was incubated with ab92511 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

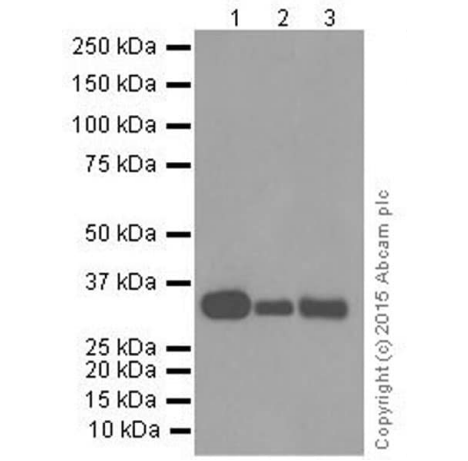
Secondary antibody only control.

Heat mediated antigen retrieval with Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 30 minutes.



Flow Cytometry (Intracellular) - Anti-HLA-DR antibody [EPR3692] (ab92511)

Overlay histogram showing Raji cells stained with ab92511 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab92511, 1/50) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (**ab96899**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.



Western blot - Anti-HLA-DR antibody [EPR3692] (ab92511)

All lanes : Anti-HLA-DR antibody [EPR3692] (ab92511) at 1/10000 dilution

Lane 1 : Raji (human Burkitt's lymphoma) whole cell lysate
Lane 2 : Ramos (human Burkitt's lymphoma) whole cell lysate
Lane 3 : Human tonsil tissue

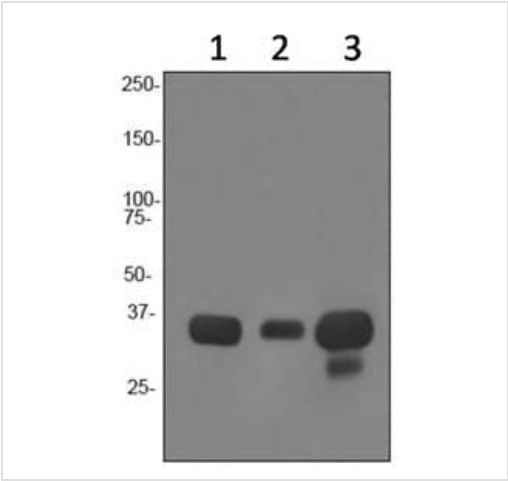
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/1000 dilution

Predicted band size: 29 kDa

Blocking buffer: 5% NFDM/TBST

Diluting buffer: 5% NFDM/TBST



Western blot - Anti-HLA-DR antibody [EPR3692] (ab92511)

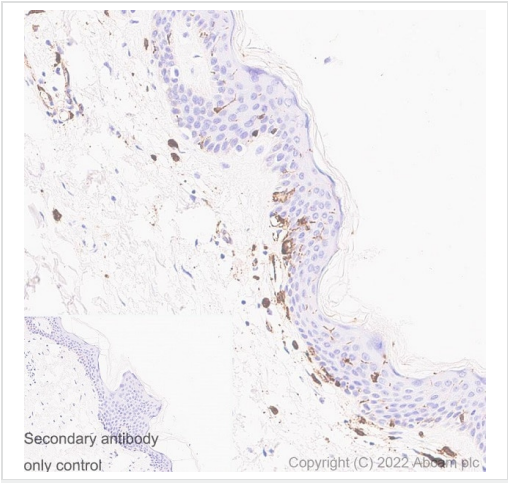
All lanes : Anti-HLA-DR antibody [EPR3692] (ab92511) at 1/5000 dilution

Lane 1 : Raji cell lysate
Lane 2 : Human spleen lysate
Lane 3 : Hu T-78 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 29 kDa

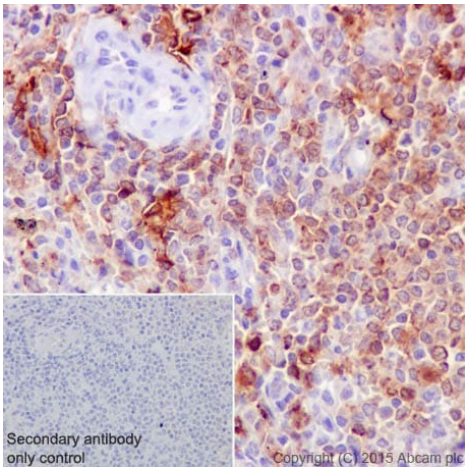


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HLA-DR antibody [EPR3692] (ab92511)

Immunohistochemical analysis of paraffin-embedded human skin tissue labelling HLA-DR with ab92511 at 1/10000 dilution (0.07 µg/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) secondary antibody. Positive staining on human skin tissue. The section was incubated with ab92511 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control.

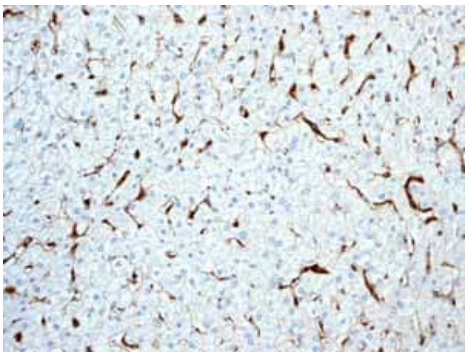
Heat mediated antigen retrieval with Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 30 minutes.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HLA-DR antibody [EPR3692] (ab92511)

ab92511 staining HLA-DR in human spleen tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody at a dilution of 1/700. A goat anti-rabbit IgG H&L (HRP) **ab97051** was used as the secondary antibody at a dilution of 1/500.

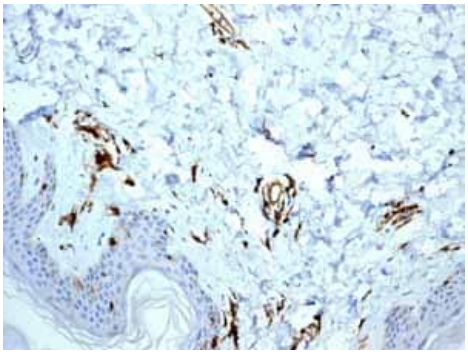
Negative control 1: PBS in place of primary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HLA-DR antibody [EPR3692] (ab92511)

ab92511 showing positive staining in Normal liver vessels tissue.

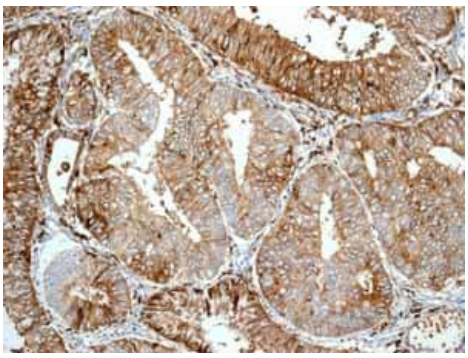
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HLA-DR antibody [EPR3692] (ab92511)

ab92511 showing positive staining in Normal skin vessels tissue.

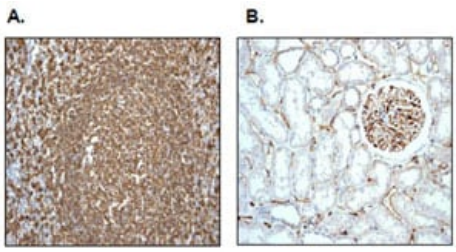
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HLA-DR antibody [EPR3692] (ab92511)

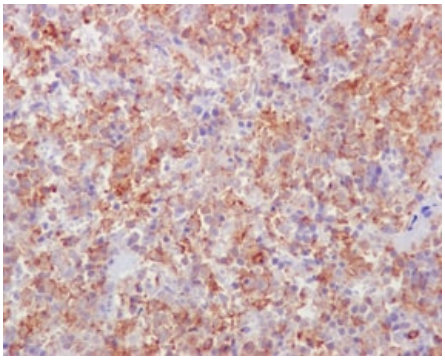
ab92511 showing positive staining in Endometrial carcinoma vessels tissue.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



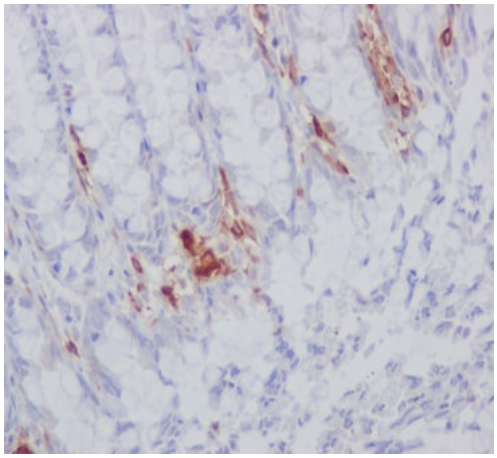
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HLA-DR antibody [EPR3692] (ab92511)

ab92511, at a 1/100 dilution, staining HLA-DRA in paraffin embedded Human tonsil (A) and Human kidney (B) tissue by Immunohistochemistry. Detection: by DAB staining



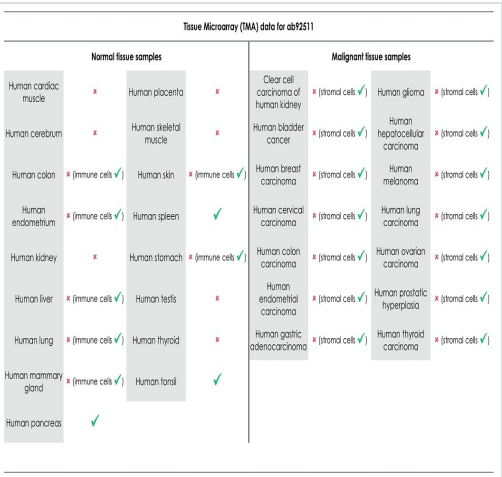
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HLA-DR antibody [EPR3692] (ab92511)

Immunohistochemical analysis of paraffin-embedded rat spleen tissue labeling HLA DR with ab92511 at a dilution of 1/1000. A Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) was used as the secondary antibody, at a dilution of 1/500. Counter stained with hematoxylin.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HLA-DR antibody [EPR3692] (ab92511)

Immunohistochemical analysis of paraffin-embedded rat colon tissue labeling HLA DR with ab92511 at a dilution of 1/1000. A Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) was used as the secondary antibody, at a dilution of 1/500. Counter stained with hematoxylin.

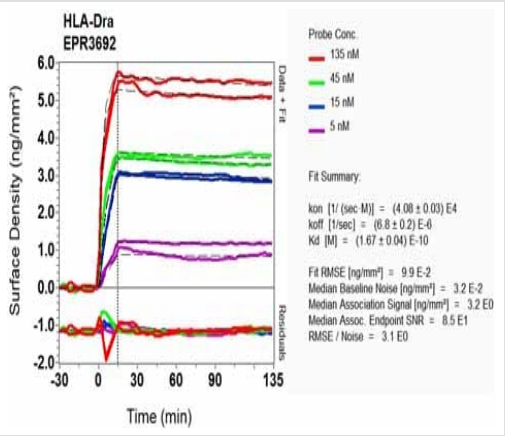


Tissue Microarray (TMA) data for ab92511

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

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HLA-DR antibody [EPR3692] (ab92511)

Tissue Microarrays stained for "Anti-HLA-DR antibody [EPR3692]" using "ab92511" 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 Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes. The sections were incubated with ab92511 for 30 mins at room temperature followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



OI-RD Scanning - Anti-HLA-DR antibody [EPR3692] (ab92511)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D

Anti-HLA-DR antibody [EPR3692] (ab92511)

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