

Product datasheet

Anti-B7H4 antibody [EPR20236-9] ab269455

Recombinant RabMAb

5 Images

Overview

<b>Product name</b>	Anti-B7H4 antibody [EPR20236-9]
<b>Description</b>	Rabbit monoclonal [EPR20236-9] to B7H4
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, Flow Cyt, IP, WB <b>Unsuitable for:</b> IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: SK-BR-3, T47D and Mouse uterus lysates. ICC/IF: HEK-293T cell line transfected with a HA-tagged B7-H4 expression vector. Flow Cyt: 293T (human embryonic kidney epithelial cell) transfected with myc-tagged B7-H4 expression vector. IP: SK-BR-3 cells.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR20236-9

Isotype

IgG

## Applications

---

### The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab269455 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
ICC/IF		1/500.
Flow Cyt		1/60.
IP		1/30.
WB		1/1000. Detects a band of approximately 28, 45, 65 kDa (predicted molecular weight: 31 kDa).

### Application notes

Is unsuitable for IHC-P.

## Target

---

### Function

Negatively regulates T-cell-mediated immune response by inhibiting T-cell activation, proliferation, cytokine production and development of cytotoxicity. When expressed on the cell surface of tumor macrophages, plays an important role, together with regulatory T-cells (Treg), in the suppression of tumor-associated antigen-specific T-cell immunity. Involved in promoting epithelial cell transformation.

### Tissue specificity

Overexpressed in breast, ovarian, endometrial, renal cell (RCC) and non-small-cell lung cancers (NSCLC). Expressed on activated T- and B-cells, monocytes and dendritic cells, but not expressed in most normal tissues (at protein level). Widely expressed, including in kidney, liver, lung, ovary, placenta, spleen and testis.

### Sequence similarities

Belongs to the immunoglobulin superfamily. BTN/MOG family.  
Contains 2 Ig-like V-type (immunoglobulin-like) domains.

### Post-translational modifications

N-glycosylated.

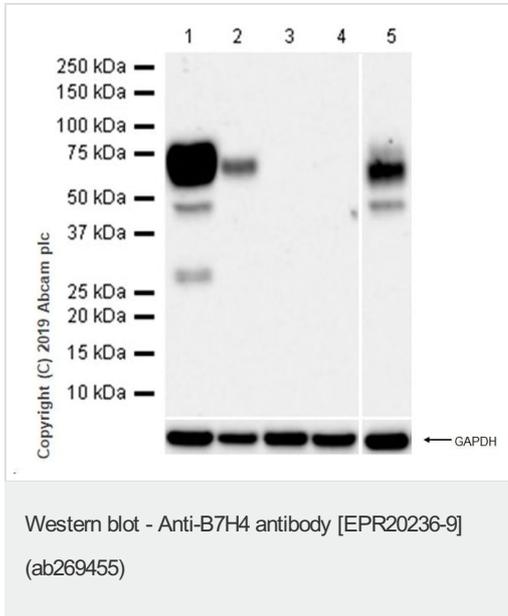
### Cellular localization

Cell membrane. Expressed at the cell surface. A soluble form has also been detected.

---

## Images

---



**All lanes :** Anti-B7H4 antibody [EPR20236-9] (ab269455) at 1/1000 dilution

**Lane 1 :** SK-BR-3 (human breast adenocarcinoma epithelial cell), whole cell lysate

**Lane 2 :** T47D (human ductal breast epithelial tumor epithelial cell), whole cell lysate

**Lane 3 :** HeLa (human cervix adenocarcinoma epithelial cell), whole cell lysate

**Lane 4 :** HT-29 (human colorectal adenocarcinoma epithelial cell), whole cell lysate

**Lane 5 :** Mouse uterus tissue 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:** 31 kDa

**Observed band size:** 28,45,65 kDa

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure time: 114 seconds.

B7H4 is N-glycosylated protein. The level of B7H4 glycosylation varies between different cells and tissues. The bands at 65kDa and 45kDa represent glycosylated B7H4. The band at 28kDa represents non-glycosylated B7H4. (PMID: 15878339).

**Negative control:** HT-29 and HeLa. (PMID: 15878339).



Immunoprecipitation - Anti-B7H4 antibody [EPR20236-9] (ab269455)

B7H4 was immunoprecipitated from 0.35 mg SK-BR-3 (Human breast adenocarcinoma epithelial cell) whole cell lysate with ab269455 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab269455 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/5000 dilution.

Lane 1: SK-BR-3 whole cell lysate 10ug.

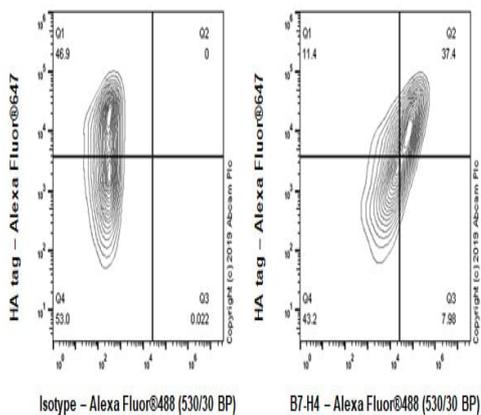
Lane 2: ab269455 IP in SK-BR-3 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab269455 in SK-BR-3 whole cell lysate.

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

Exposure time: 30 seconds.

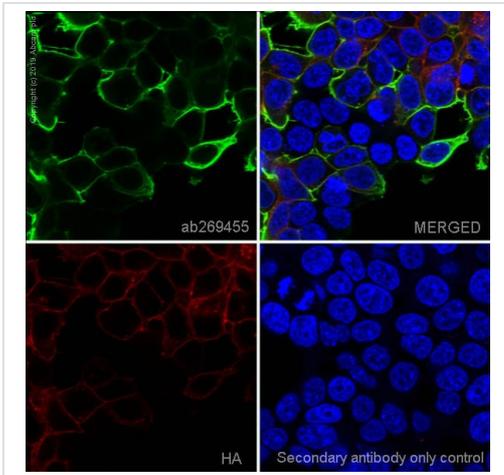
B7H4 is N-glycosylated protein. The level of B7H4 glycosylation varies between different cells and tissues. The band at 65kDa represents glycosylated B7H4. The band at 28kDa represents non-glycosylated B7H4 (PMID: 15878339).



Flow Cytometry - Anti-B7H4 antibody [EPR20236-9] (ab269455)

Flow cytometric analysis of 2% paraformaldehyde fixed 0.1% Tween-20 permeabilized HEK-293T (human embryonic kidney epithelial cell) transfected with myc-tagged B7-H4 expression vector cells labelling B7H4 with ab269455 at 1/60 dilution (Right) compared with a Rabbit monoclonal IgG (ab172730) isotype control (Left). PMID: 23722540 and PMID: 27632942 showed that cell surface expression of B7-H4 hard to detected in vitro cultured cell lines, and all the commercial B7H4 antibodies that recommend FC as an application use the overexpression system. Our RabMab also could recognise overexpressed B7H4. The overexpression plasmid contains the full length aa1-282 of human B7H4(Q7Z7D3) with HA tag in pcDNA3.1(+) vector.

Cells were surface stained with rabbit IgG (Left) or ab269455 (Right). Then fixed with 2% PFA followed by intracellularly stained with anti-HA tag conjugated to Alexa Fluor® 647.



Immunocytochemistry/ Immunofluorescence - Anti-B7H4 antibody [EPR20236-9] (ab269455)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HEK-293T (human embryonic kidney epithelial cell) cells labelling B7H4 with ab269455 at 1/500 dilution, followed by [ab150077](#) AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic and membranous staining in HEK-293T cell line transfected with a HA-tagged B7-H4 expression vector. Alexa Fluor® 647 anti-HA.11 Epitope Tag Antibody was used at 200 dilution to detecte the overexpressed protein (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is [ab150077](#) AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 dilution.

Why choose a recombinant antibody?

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

Anti-B7H4 antibody [EPR20236-9] (ab269455)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

### Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you

- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

### **Terms and conditions**

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors