abcam

ab324645

Anti-IL-7 antibody [EPR27289-137]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR27289-137
Purification technique	Affinity purification Protein A
Specificity	This antibody has only been validated in cells overexpressing human and mouse IL-7.
Concentration	0.495 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Transfected cell lysate - Human
Dilution info	1/1000

Notes	-

Species	Transfected cell lysate - Mouse
Dilution info	1/1000
Notes	-

Predicted

Species	Human, Mouse
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell line - Human, Transfected cell line - Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Transfected cell line - Human
Dilution info	1/500
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Transfected cell line - Mouse
Dilution info	1/500
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Predicted

Species	Human, Mouse
Dilution info	-

Notes	-

Not recommended

Species	Transfected cell lysate - Human, Transfected cell lysate - Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Transfected cell line - Human
Dilution info	1/1000
Notes	-

Species	Transfected cell line - Mouse
Dilution info	1/1000
Notes	-

Predicted

Species	Human, Mouse
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Human, Transfected cell lysate - Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Transfected cell line - Human

Dilution info	1/500
Notes	-

Species	Transfected cell line - Mouse
Dilution info	1/500
Notes	-

Predicted

Species	Human, Mouse
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Human, Transfected cell lysate - Mouse
Dilution info	-
Notes	-

Target data

See full target information IL7

Function	Hematopoietic cytokine that plays an essential role in the development, expansion, and survival of naive and memory T-cells and B-cells thereby regulating the number of mature lymphocytes and maintaining lymphoid homeostasis (PubMed:25870237, PubMed:7527823). Mechanistically, exerts its biological effects through a receptor composed of IL7RA subunit and the cytokine receptor common subunit gamma/CSF2RG (PubMed:8128231). Binding to the receptor leads to activation of various kinases including JAK1 or JAK3 depending on the cell type and subsequently propagation of signals through activation of several downstream signaling pathways including the PI3K/Akt/mTOR or the JAK-STAT5 (PubMed:18523275, PubMed:20974963).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

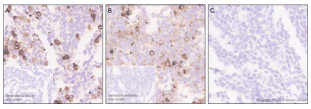
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

5 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IL-7 antibody [EPR27289-137] (ab324645)

IL-7 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IL-7 antibody

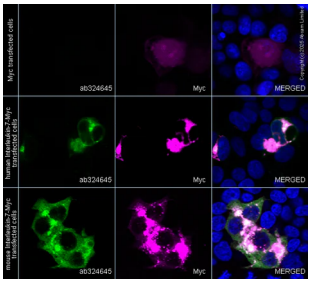
Immunohistochemical analysis of paraffin-embedded (A) HEK-293T (human epithelial cell line from embryonic kidney) transfected with a human IL7 expression vector containing a Myc-His tag, (B) HEK-293T transfected with a mouse IL7 expression vector containing a Myc-His tag and (C) HEK-293T transfected with empty vector containing a Myc-His tag labeling IL-7 with ab324645 at 1/500 (1.014 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on (A) HEK-293T (human epithelial cell line from embryonic kidney) transfected with a human IL7 expression vector containing a Myc-His tag, (B) HEK-293T transfected with a mouse IL7 expression vector containing a Myc-His tag, and no staining on (C) HEK-293T transfected with empty vector containing a Myc-His tag. The section was incubated with ab324645 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



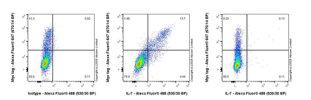
Immunocytochemistry/ Immunofluorescence - Anti-IL-7 antibody [EPR27289-137] (ab324645)

IL-7 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-IL-7 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized 293T (human embryonic kidney epithelial cell) cells labelling IL-7 with ab324645 at 1/1000 (0.507 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 (2 ug/ml) dilution (Green).

Confocal image showing positive staining in 293T (shown in green) cells transfected with a mouse Interleukin-7 or a human Interleukin-7 expression vector containing a myc-His-tag®. The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab223894 Anti-Myc tag mouse monoclonal antibody (Alexa Fluor® 594) was used to counterstain tubulin at 1/100 (5 ug/ml) dilution (Magenta).



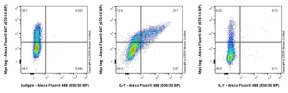
Flow Cytometry (Intracellular) - Anti-IL-7 antibody [EPR27289-137] (ab324645)

IL-7 Flow Cytometry (Intracellular) staining using rabbit Anti-IL-7 antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Isotype (Left) / 293T cells transfected with a human IL-7 expression vector containing a myc-His-tag® (Middle) / 293T cells transfected with an empty expression vector containing a myc-His-tag® (Right) cells labelling IL-7 with ab324645 at 1/500 dilution (0.1ug) / Middle and Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control.

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Cells are co-stained with Myc tag conjugated to Alexa Fluor®647.



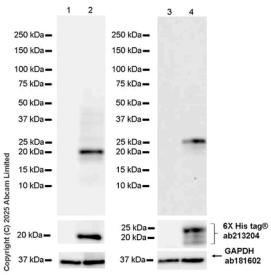
Flow Cytometry (Intracellular) - Anti-IL-7 antibody [EPR27289-137] (ab324645)

IL-7 Flow Cytometry (Intracellular) staining using rabbit Anti-IL-7 antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Isotype (Left) / 293T cells transfected with a mouse IL-7 expression vector containing a myc-His-tag® (Middle) / 293T cells transfected with an empty expression vector containing a myc-His-tag® (Right) cells labelling IL-7 with ab324645 at 1/500 dilution (0.1ug) / Middle and Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control.

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Cells are co-stained with Myc tag conjugated to Alexa Fluor®647.



Western blot - Anti-IL-7 antibody [EPR27289-137] (ab324645)

IL-7 Western blot staining using rabbit Anti-IL-7 antibody

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

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

Exposure time: Lane 1, 2: 26 seconds Lane 3, 4: 180 seconds

All lanes:
Western blot - Anti-IL-7 antibody [EPR27289-137] (ab324645) at 1/1000 dilution

Lane 1:
293T (human embryonic kidney epithelial cell) cells transfected with an empty vector containing a Myc-his tag, whole cell lysate at 7 µg

Lane 2:
293T cells transfected with a human IL-7 expression vector containing a Myc-his tag, whole cell lysate at 7 µg

Lane 3:
293T cells transfected with an empty vector containing a Myc-his tag, whole cell lysate at 4 µg

Lane 4:
293T cells transfected with a mouse IL-7 expression vector containing a Myc-his tag, whole cell lysate at 4 µg

Secondary

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

Observed band size: 20 kDa, 36 kDa, 20-25 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.