abcam

ab316852

Anti-Adenovirus Type 5 Hexon antibody [EPR28237-57]

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	EPR28237-57
Purification technique	Affinity purification Protein A
Concentration	0.492 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Transfected cell lysate - Human adenovirus 5
Dilution info	1/1000
Notes	-

Predicted

Species	Human adenovirus 5
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell line - Human adenovirus 5, Synthetic peptide - Human adenovirus 5
Dilution info	-
Notes	-

IHC-P

Tested

Species	Transfected cell line - Human adenovirus 5
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 adenovirus 5
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Human adenovirus 5, Synthetic peptide - Human adenovirus 5
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Transfected cell line - Human adenovirus 5
Dilution info	1/4000
Notes	-

Predicted

Species	Human adenovirus 5
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Human adenovirus 5, Synthetic peptide - Human adenovirus 5
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Transfected cell line - Human adenovirus 5
Dilution info	1/5000
Notes	-

Predicted

Species	Human adenovirus 5
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Human adenovirus 5, Synthetic peptide - Human adenovirus 5

Dilution info	-
Notes	-

IP

Tested

Species	Transfected cell lysate - Human adenovirus 5
Dilution info	1/30
Notes	-

Predicted

Species	Human adenovirus 5
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell line - Human adenovirus 5, Synthetic peptide - Human adenovirus 5
Dilution info	-
Notes	-

I-ELISA

Tested

Species	Synthetic peptide - Human adenovirus 5
Dilution info	1 µg/mL
Notes	-

Predicted

Species	Human adenovirus 5
Dilution info	-

Notes	-

Not recommended

Species	Transfected cell lysate - Human adenovirus 5, Transfected cell line - Human adenovirus 5
Dilution info	-
Notes	-

Target data

See full target information L3

Function	Major capsid protein that self-associates to form 240 hexon trimers, each in the shape of a hexagon, building most of the pseudo T=25 capsid. Assembled into trimeric units with the help of the chaperone shutoff protein. Transported by pre-protein VI to the nucleus where it associates with other structural proteins to form an empty capsid. Might be involved, through its interaction with host dyneins, in the intracellular microtubule-dependent transport of incoming viral capsid to the nucleus.

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The Adenovirus Type 5 hexon also known as hexon protein or 5 protein is a major structural component of adenovirus capsid with a mass of approximately 960 kDa. Hexon proteins form the outer shell of the virus giving it stability and shape. These proteins are heavily expressed on the surface of human adenovirus serotype 5 a common virus strain used in therapeutic vector development. Hexon comprises three regions: the hypervariable regions conserved regions and the base that interacts with other capsid proteins.
Biological function summary	Adenovirus hexon proteins participate in the assembly and stability of the virus capsid complex. The hexon proteins interact with other components like penton base and fiber proteins to form a robust and protective viral coat. Their function involves binding to cell surface receptors such as the coxsackievirus and adenovirus receptor (CAR) allowing the virus to attach to and enter host cells. This interaction is key in viral infections and also in viral vector efficiency.
Pathways	The adenovirus Type 5 hexon protein plays important roles in immune evasion and viral entry pathways. The hexon protein helps the virus escape host immune detection by eluding neutralizing antibodies. The internal pathways also involve interactions with proteins like E1A which modulates host cell cycle pathways for viral replication. These interactions integrate hexon proteins into the broader adenoviral life cycle and infection processes.
Associated diseases and disorders	Infections involving adenovirus Type 5 relate to respiratory illnesses and conjunctivitis. Respiratory infections often occur in crowded environments such as schools and military barracks and the hexon protein's interaction with the immune system can exacerbate symptoms. Additionally due to its prevalent role in viral vector design research on hexon relates to gene therapy contexts scrutinizing how hexon modifications impact disease treatment and host immune response. Hemagglutinin might connect to respiratory disorders linked to adenovirus making it also relevant in developing therapies.

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.

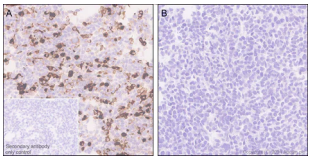
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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10 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Adenovirus Type 5 Hexon antibody [EPR28237-57] (ab316852)

Adenovirus Type 5 Hexon Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Adenovirus Type 5 Hexon antibody

Immunohistochemical analysis of paraffin-embedded (A) HEK-293T (human embryonic kidney epithelial cell) transfected with a Adenovirus Type 5 Hexon expression vector containing a myc-His-tag®. (B) HEK-293T transfected with empty vector containing a myc-His-tag®. tissue labeling Adenovirus Type 5 Hexon with ab316852 at 1/500 (0.998 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

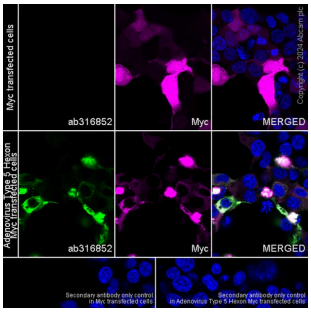
Positive staining on (A) HEK-293T transfected with a Adenovirus Type 5 Hexon vector containing a myc-His-tag®. No staining on (B) HEK-293T transfected with empty vector containing a myc-His-tag®.
The section was incubated with ab316852 for 30 mins at room temperature.
The immunostaining was performed 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

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Immunocytochemistry/ Immunofluorescence - Anti-Adenovirus Type 5 Hexon antibody [EPR28237-57] (ab316852)

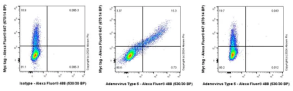
Adenovirus Type 5 Hexon Immunocytochemistry/ Immunofluorescence staining of 293T (human embryonic kidney epithelial cell) transfected with an Adenovirus Type 5 Hexon vector containing a myc-His-tag®. using rabbit Anti-Adenovirus Type 5 Hexon antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized 293T (human embryonic kidney epithelial cell) transfected with an Adenovirus Type 5 Hexon vector containing a myc-His-tag®. cells labelling Adenovirus Type 5 Hexon with ab316852 at 1/4000 (0.125 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 cells transfected with an Adenovirus Type 5 Hexon vector containing a myc-His-tag®.
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 at 1/100 (5ug/ml) dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/ml) dilution.



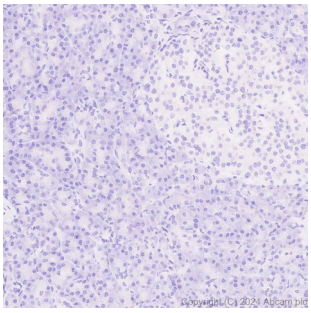
Flow Cytometry (Intracellular) - Anti-Adenovirus Type 5 Hexon antibody [EPR28237-57] (ab316852)

Adenovirus Type 5 Hexon Flow Cytometry (Intracellular) staining using rabbit Anti-Adenovirus Type 5 Hexon antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Isotype (Left) / 293T cells transfected with HAdV-5 Hexon vector containing a myc-His-tag® (Middle) / 293T cells transfected with an epmty vector containing a myc-His-tag® (Right) cells labelling Adenovirus Type 5 Hexon with ab316852 at 1/5000 dilution (0.01 ug)/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 were stained with anti-myc tag conjugated to Alexa Fluor®647.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Adenovirus Type 5 Hexon antibody [EPR28237-57] (ab316852)

Adenovirus Type 5 Hexon Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human pancreas using rabbit Anti-Adenovirus Type 5 Hexon antibody

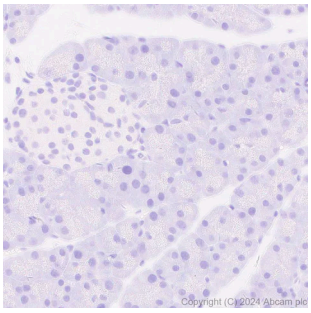
Immunohistochemical analysis of paraffin-embedded Human pancreas tissue labeling Adenovirus Type 5 Hexon with ab316852 at 1/500 (0.998 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

No staining on human pancreas.
The section was incubated with ab316852 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 citrate buffer (pH 9.0, epitope retrieval solution 2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Adenovirus Type 5 Hexon antibody [EPR28237-57] (ab316852)

Adenovirus Type 5 Hexon Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse pancreas using rabbit Anti-Adenovirus Type 5 Hexon antibody

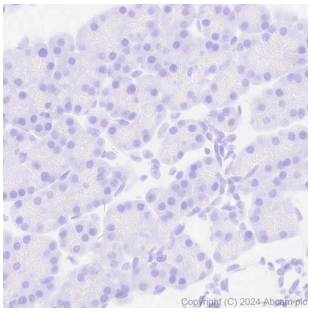
Immunohistochemical analysis of paraffin-embedded Mouse pancreas tissue labeling Adenovirus Type 5 Hexon with ab316852 at 1/500 (0.998 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

No staining on mouse pancreas.
The section was incubated with ab316852 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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Adenovirus Type 5 Hexon antibody [EPR28237-57] (ab316852)

Adenovirus Type 5 Hexon Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat pancreas using rabbit Anti-Adenovirus Type 5 Hexon antibody

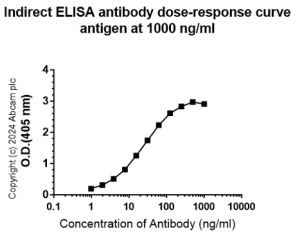
Immunohistochemical analysis of paraffin-embedded Rat pancreas tissue labeling Adenovirus Type 5 Hexon with ab316852 at 1/500 (0.998 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

No staining on rat pancreas.
The section was incubated with ab316852 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

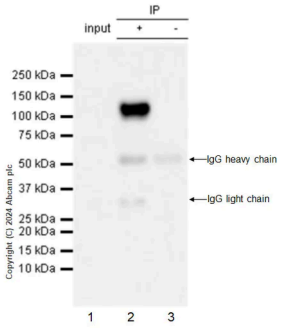


Indirect ELISA - Anti-Adenovirus Type 5 Hexon antibody [EPR28237-57] (ab316852)

Indirect ELISA analysis of ab316852 at 1000-0 ng/ml. The Secondary antibody used was Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L) at 1:2500 dilution.

Antigen: Adenovirus Type 5 Hexon.

Antigen concentration: 1000 ng/ml



Immunoprecipitation - Anti-Adenovirus Type 5 Hexon antibody [EPR28237-57] (ab316852)

Adenovirus Type 5 Hexon was immunoprecipitated from 0.35 mg 293T (human embryonic kidney epithelial cell) cells transfected with a Adenovirus Type 5 Hexon expression vector containing a myc-His-tag®, whole cell lysate with ab316852 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab316852 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.

Lane 1: 293T (human embryonic kidney epithelial cell) cells transfected with a Adenovirus Type 5 Hexon expression vector containing a myc-His-tag®, whole cell lysate
Lane 2: ab316852 IP in 293T (human embryonic kidney epithelial cell) cells transfected with a Adenovirus Type 5 Hexon expression vector containing a myc-His-tag®, whole cell lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab316852 in 293T cells transfected with a Adenovirus Type 5 Hexon expression vector containing a myc-His-tag®, whole cell lysate

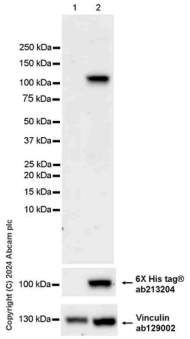
All lanes:
Immunoprecipitation - Anti-Adenovirus Type 5 Hexon antibody [EPR28237-57] (ab316852) at 1/30 dilution

All lanes:
293T (human embryonic kidney epithelial cell) cells transfected with a Adenovirus Type 5 Hexon expression vector containing a myc-His-tag®, whole cell lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 10s



Western blot - Anti-Adenovirus Type 5 Hexon antibody [EPR28237-57] (ab316852)

Adenovirus Type 5 Hexon Western blot staining using rabbit Anti-Adenovirus Type 5 Hexon antibody

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

In Western blot, Anti-6X His tag® antibody [EPR20547] - ChIP Grade (ab213204) staining at 1/5000 dilution.

All lanes:
Western blot - Anti-Adenovirus Type 5 Hexon antibody [EPR28237-57] (ab316852) at 1/1000 dilution

Lane 1:
293T cells (human embryonic kidney epithelial cell) transfected with an empty vector containing a myc-His-tag®, whole cell lysate at 20 µg

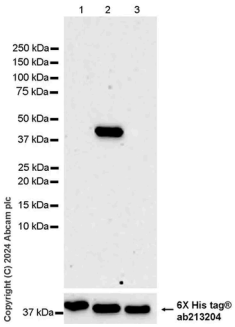
Lane 2:
293T cells transfected with a Adenovirus Type 5 Hexon expression vector containing a myc-His-tag®, whole cell lysate at 20 µg

Secondary

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

Observed band size: 108 kDa, 104 kDa

Exposure time: 81s



Western blot - Anti-Adenovirus Type 5 Hexon antibody [EPR28237-57] (ab316852)

Adenovirus Type 5 Hexon Western blot staining using rabbit Anti-Adenovirus Type 5 Hexon antibody

This antibody does not cross-react with Adenovirus Type 2 Hexon and Adenovirus Type 4 Hexon.

In Western blot, Anti-6X His tag® antibody [EPR20547] - ChIP Grade (ab213204) staining at 1/5000 dilution.

All lanes:
Western blot - Anti-Adenovirus Type 5 Hexon antibody [EPR28237-57] (ab316852) at 1/1000 dilution

Lane 1:
His-tagged Adenovirus Type 2 Hexon protein at 10 ng

Lane 2:
His-tagged Adenovirus Type 5 Hexon protein at 10 ng

Lane 3:
His-tagged Adenovirus Type 4 Hexon protein at 10 ng

Secondary

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

Observed band size: 36 kDa

Exposure time: 180s

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