abcam

ab309485

Anti-V5 tag antibody [EPR27187-61]

Anti-V5 tag antibody [EPR27187-61] (ab309485) is a rabbit monoclonal antibody detecting V5 tag in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**.

- Biophysical QC for unrivalled batch-batch consistency

Lab Essentials | 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
Immunogens	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR27187-61
Purification technique	Affinity purification Protein A
Concentration	0.5485 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Tag
Dilution info	1/1000

Notes	-

IHC-P

Tested

Species	Tag
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

ICC/IF

Tested

Species	Tag
Dilution info	1/500
Notes	-

Flow Cyt (Intra)

Tested

Species	Tag
Dilution info	1/500
Notes	-

IP

Tested

Species	Tag
Dilution info	1/30
Notes	-

Target data

See full target information V5 tag

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

What is this antibody validated in?
Anti-V5 tag antibody [EPR27187-61] (ab309485) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Flow Cytometry (Flow Cyt), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF).

Tagged protein detection
V5 tag antibodies are used to visualize proteins labelled with this tag in a variety of applications.

Other related products
We have a range of other formats of antibody clone [EPR27187-61] also available for your convenience: ab309485, Carrier free - ab309486, APC - ab317483, HRP - ab323656

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Supplementary info

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

Activity summary	The V5 tag is an epitope tag derived from the P and V fusion proteins of the paramyxovirus. It typically measures around 14 amino acids in length and is often used in molecular biology for tagging and protein expression studies. In terms of mechanical function the V5 tag facilitates the detection characterization and purification of recombinant proteins. Scientists commonly use it in various hosts such as bacteria yeast and mammalian cells due to its convenient integration into larger protein complexes. Unlike native proteins it serves as a non-disruptive label for identifying proteins without affecting their functionality.
Biological function summary	Researchers employ the V5 tag to decipher protein localization expression and role within cellular environments. It allows easy tracking in situ by using antibodies that target the V5 epitope such as the anti-V5 antibody. The V5 tag proves effective in dual-tagging systems useful in elucidating protein interactions and complex formations for instance when combined with other tags like biotin tag or APC tag. This assists in isolating and identifying components of complex cellular machinery.
Pathways	The tag is frequently utilized in studies exploring functional pathways of various proteins across metabolic and signaling pathways. It aids in examining the relationship between proteins within signaling cascades by tagging proteins that interact with others such as those in the PK tag-related signaling pathways. Researchers often track proteins across intricate networks to understand cellular processes intricately using V5-tagged proteins as indicators or reporters.
Associated diseases and disorders	Scientists harness the V5 tag to investigate the expression and interactions of proteins associated with certain conditions such as cancer and neurodegenerative diseases. Through its integration scientists aim to uncover alterations in protein interactions or localizations that contribute to disease progression. For example they may tag proteins linked to cancer pathways observing how disruptions in proteins related to anti-V5 targets could provide insights into tumor biology or pathogenesis.

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.

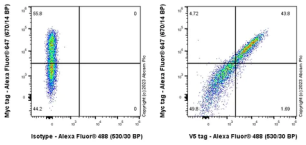
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

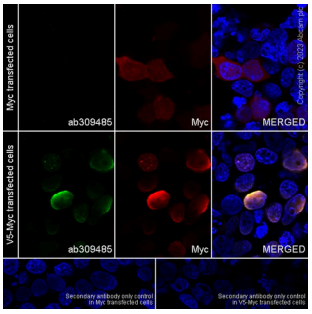
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8 product images



Flow Cytometry (Intracellular) - Anti-V5 tag antibody [EPR27187-61] (ab309485)

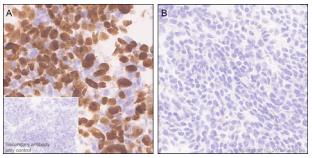
Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HEK-293T (human embryonic kidney epithelial cell) transfected with a CBX1-V5-tagged expression vector containing a myc tag cells labelling V5 tag with ab309485 at 1/500 dilution (0.1 ug)/Right (Red) compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-V5 tag antibody [EPR27187-61] (ab309485)

V5 tag Immunocytochemistry/ Immunofluorescence staining of HEK-293T (human embryonic kidney epithelial cell) using rabbit Anti-V5 tag antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HEK-293T (human embryonic kidney epithelial cell) cells labelling V5 tag with ab309485 at 1/500 (0.992 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 HEK-293T cells transfected a CBX1-V5-tagged expression vector containing a myc tag.Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8). is observed. ab223894 Anti-Myc tag mouse monoclonal antibody (Alexa Fluor® 594) was used to counterstain tubulin at 1/100 5ug/ml dilution (Red). 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.

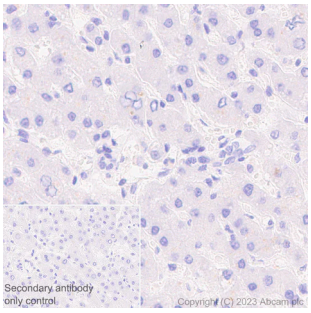


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-V5 tag antibody [EPR27187-61] (ab309485)

V5 tag Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-V5 tag antibody

Immunohistochemical analysis of paraffin-embedded (A) HEK-293T (human tissue labeling V5 tag with ab309485 at 1/2000 (0.248 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer

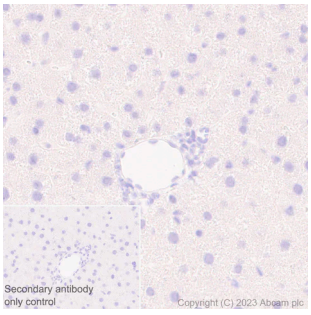
Refine Detection). Positive staining on (A) HEK-293T transfected with a CBX1-V5-tagged His tag construct, no staining on (B) HEK-293T transfected with empty plasmid. The section was incubated with ab309485 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX 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-V5 tag antibody [EPR27187-61] (ab309485)

V5 tag Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human liver using rabbit Anti-V5 tag antibody

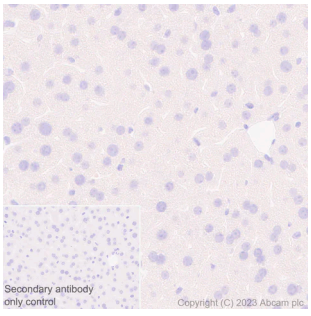
Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling V5 tag with ab309485 at 1/2000 (0.248 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Negative control: no staining on human liver. The section was incubated with ab309485 for 30 mins at room 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-V5 tag antibody [EPR27187-61] (ab309485)

V5 tag Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat liver using rabbit Anti-V5 tag antibody

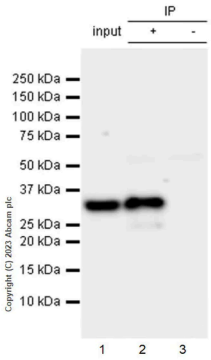
Immunohistochemical analysis of paraffin-embedded Rat liver tissue labeling V5 tag with ab309485 at 1/2000 (0.248 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Negative control: no staining on rat liver. The section was incubated with ab309485 for 30 mins at room temperature.The 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-V5 tag antibody [EPR27187-61] (ab309485)

V5 tag Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse liver using rabbit Anti-V5 tag antibody

Immunohistochemical analysis of paraffin-embedded Mouse liver tissue labeling V5 tag with ab309485 at 1/2000 (0.248 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Negative control: no staining on mouse liver. The section was incubated with ab309485 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



Immunoprecipitation - Anti-V5 tag antibody [EPR27187-61] (ab309485)

V5 tag was immunoprecipitated from 0.35 mg 293T cells transfected with a V5 tag-Chromobox protein homolog 1 expression vector containing a His-tag whole cell lysate with ab309485 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab309485 at 1/1000 dilution. VeriBlot for IP secondary antibody (HRP) (ab131366) was used at 1/5000 dilution.
Lane 1: 293T cells transfected with a V5 tag-Chromobox protein homolog 1 expression vector containing a His-tag whole cell lysate
Lane 2: ab309485 IP in 293T cells transfected with a V5 tag-Chromobox protein homolog 1 expression vector containing a His-tag whole cell lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab309485 in 293T cells transfected with a V5 tag-Chromobox protein homolog 1 expression vector containing a His-tag whole cell lysate

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

Exposure time: 3 seconds

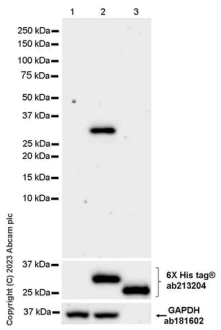
All lanes:
Immunoprecipitation - Anti-V5 tag antibody [EPR27187-61] (ab309485) at 1/1000 dilution

All lanes:
293T cells transfected with a V5 tag-Chromobox protein homolog 1 expression vector containing a His-tag whole cell lysate at 10 µg

Secondary

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

Exposure time: 3s



Western blot - Anti-V5 tag antibody [EPR27187-61] (ab309485)

Blocking and diluting buffer and concentration: 5% NFDM/TBST In Western blot, anti-His antibody (ab213204) staining at 1/5000 dilution. In Western blot, anti-GAPDH antibody (ab181602) loading control staining at 1/200000 dilution. Exposure time: 81 seconds
All lanes:
Western blot - Anti-V5 tag antibody [EPR27187-61] (ab309485) at 1/1000 dilution

Lane 1:
293T cells transfected with an empty vector containi a His tag whole cell lysate at 20 µg

Lane 2:
293T cells transfected with a V5 tag-Chromobox protein homolog 1 expression vector containi a His-tag whole cell lysate at 10 µg

Lane 3:
His-tagged human Chromobox protein homolog 1 recombinant protein at 50 ng

Secondary

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

Observed band size: 27 kDa

Exposure time: 81s

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