abcam

ab247408

Anti-UBE2I / UBC9 antibody [EP2938Y] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EP2938Y
Purification technique	Affinity purification Protein A
Concentration	1.048 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.

Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human, Rat
Dilution info	-
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human, Rat, Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Rat, Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Rat, Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information UBE2I

Function Accepts the ubiquitin-like proteins SUMO1, SUMO2, SUMO3, SUMO4 and SUMO1P1/SUMO5 from the UBLE1A-UBLE1B E1 complex and catalyzes their covalent attachment to other proteins with the help of an E3 ligase such as RANBP2, CBX4 and ZNF451. Can catalyze the formation of poly-SUMO chains. Necessary for sumoylation of FOXL2 and KAT5. Essential for nuclear architecture and chromosome segregation. Sumoylates p53/TP53 at 'Lys-386'. Mediates sumoylation of ERCC6 which is essential for its transcription-coupled nucleotide excision repair activity (PubMed:26620705). Sumoylates SHMT1 at 'Lys-38' or 'Lys-39' leading to RAN-dependent nuclear import of SHMT1 (PubMed:17446168). Also sumoylates TYMS and DHFR (PubMed:18067453).

Storage

Shipped at conditions Blue Ice

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab247408 is the carrier-free version of ab75854.

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.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

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

Activity summary	UBE2I also known as UBC9 is a small ubiquitin-related modifier (SUMO) conjugating enzyme. It plays an important role in the SUMOylation process which modifies proteins by attaching sumo proteins to them altering their function. This protein has a molecular mass of approximately 18 kDa. UBE2I is expressed broadly across various tissues demonstrating its significance in cellular processes.
Biological function summary	The SUMO conjugating enzyme UBE2I is part of the SUMOylation complex which includes the SUMO E1 enzyme and SUMO E3 ligase. It facilitates the attachment of

	SUMO proteins to target proteins which can influence protein stability localization and interaction with other proteins. This modification usually regulates important cellular functions such as transcription DNA repair and cell cycle progression.
Pathways	Proteins modified by UBE2I participate in significant biological pathways such as the DNA damage response and cell cycle regulation. In the DNA damage response UBE2I works with proteins such as p53 and BRCA1 to maintain genomic stability. In cell cycle pathways interactions with proteins like cyclin D1 and CDK inhibitors help control cellular proliferation by SUMOylating key regulatory proteins.
Associated diseases and disorders	UBE2I has been implicated in cancer and neurodegenerative diseases. Altered SUMOylation by UBE2I can lead to the dysfunction of tumor suppressor proteins like p53 contributing to cancer development. In neurodegenerative diseases abnormal SUMOylation might affect proteins like tau which can lead to the progression of conditions such as Alzheimer's disease. The role of UBE2I in these disorders highlights it as a potential therapeutic target in addressing these conditions.

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

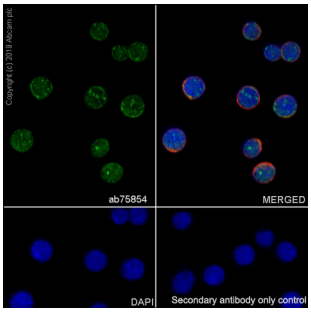
We do not recommend this combination. It is not covered by our product promise.

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.

7 product images

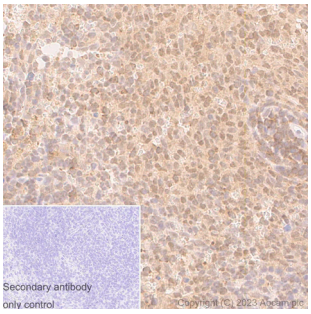


Immunocytochemistry/ Immunofluorescence - Anti-UBE2I / UBC9 antibody [EP2938Y] - BSA and Azide free (ab247408)

UBE2I / UBC9 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-UBE2I / UBC9 antibody

Immunocytochemistry/ Immunofluorescence analysis of Jurkat (human T cell leukemia T lymphocyte) cells labeling UBE2I / UBC9 with purified ab75854 at 1/100 dilution (10 µg/mL). Cells were fixed in 100% Methanol. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/mL) dilution. DAPI (blue) was used as nuclear counterstain. ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL) was used as the secondary antibody only control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab75854).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UBE2I / UBC9 antibody [EP2938Y] - BSA and Azide free (ab247408)

This data was developed using ab75854, the same antibody clone in a different buffer formulation.

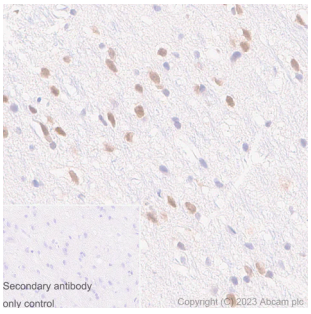
Immunohistochemical analysis of paraffin-embedded Rat spleen labelling UBE2I / UBC9 with ab75854 at 1/2000 (0.227 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on the Rat spleen
The section was incubated with ab75854 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 6.0, Epitope Retrieval Solution 1) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UBE2I / UBC9 antibody [EP2938Y] - BSA and Azide free (ab247408)

This data was developed using ab75854, the same antibody clone in a different buffer formulation.

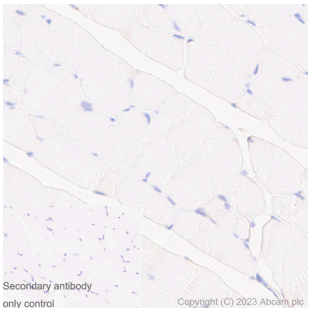
Immunohistochemical analysis of paraffin-embedded Rat cerebrum labelling UBE2I / UBC9 with ab75854 at 1/2000 (0.227 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Nuclear staining on the Rat cerebrum
The section was incubated with ab75854 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 6.0, Epitope Retrieval Solution 1) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UBE2I / UBC9 antibody [EP2938Y] - BSA and Azide free (ab247408)

This data was developed using ab75854, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Mouse skeletal mucle with ab75854 at 1/2000 (0.227 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

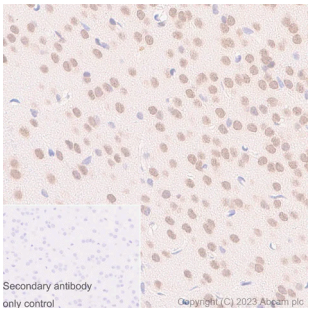
Low expression tissue: Negligible staining on Mouse skeletal muscle.

The section was incubated with aab75854 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND RX instrument.

Counterstained with Hematoxylin.

Heat mediated antigen retrieval was performed with Citrate buffer (pH 6.0, Epitope Retrieval Solution 1) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UBE2I / UBC9 antibody [EP2938Y] - BSA and Azide free (ab247408)

This data was developed using ab75854, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Mouse cerebrum labelling UBE2I / UBC9 with ab75854 at 1/2000 (0.227 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Nuclear staining on the mouse cerebrum
The section was incubated with ab75854 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 6.0, Epitope Retrieval Solution 1) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UBE2I / UBC9 antibody [EP2938Y] - BSA and Azide free (ab247408)

UBE2I / UBC9 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Low expression tissue: Negligible staining on Rat skeletal muscle. using rabbit Anti-UBE2I / UBC9 antibody

This data was developed using ab75854 the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Rat skeletal mucle with ab75854 at 1/2000 (0.227 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

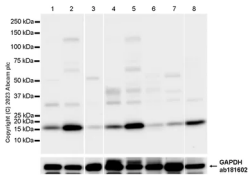
Low expression tissue: Negligible staining on Rat skeletal muscle.

The section was incubated with aab75854 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND RX instrument.

Counterstained with Hematoxylin.

Heat mediated antigen retrieval was performed with Citrate buffer (pH 6.0 Epitope Retrieval Solution 1) for 20 mins.



Western blot - Anti-UBE2I / UBC9 antibody [EP2938Y] - BSA and Azide free (ab247408)

This data was developed using ab75854, the same antibody clone in a different buffer formulation

Diluting and blocking buffer: 5% NFDM/TBST 5% NFDM/TBST

Low expression control: mouse skeletal muscle, rat parathyroid. rat skeletal muscle.

In Western blot, anti-GAPDH antibody (ab181602) loading control staining at 1/200000 dilution.

All lanes:
Western blot - Anti-UBE2I / UBC9 antibody [EP2938Y] (ab75854) at 1/1000 dilution

Lane 1:
Mouse brain tissue lysate at 20 µg

Lane 2:
Mouse spleen tissue lysate at 20 µg

Lane 3:
Mouse skeletal muscle tissue lysate at 20 µg

Lane 4:
Rat brain tissue lysate at 20 µg

Lane 5:
Rat spleen tissue lysate at 20 µg

Lane 6:
Rat parathyroid tissue lysate at 20 µg

Lane 7:
Rat skeletal muscle tissue lysate at 20 µg

Lane 8:

U-937 (human histiocytic lymphoma monocyte) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 18 kDa

Observed band size: 18 kDa

Exposure time: 3s

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