abcam

ab277948

Anti-ING5 antibody [EPR23930-1] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR23930-1
Purification technique	Affinity purification Protein A

Reactivity data

ICC/IF

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

IP

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

WB

Tested

Species	Mouse, Rat, Human, Recombinant full length protein - Human

Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human, Recombinant full length protein - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Target data

See full target information ING5

Function	Component of the HBO1 complex, which specifically mediates acetylation of histone H3 at 'Lys-14' (H3K14ac) and, to a lower extent, acetylation of histone H4 (PubMed:24065767). Component of the MOZ/MORF complex which has a histone

H3 acetyltransferase activity (PubMed:16387653). Through chromatin acetylation it may regulate DNA replication and may function as a transcriptional coactivator (PubMed:12750254, PubMed:16387653). Inhibits cell growth, induces a delay in S-phase progression and enhances Fas-induced apoptosis in an INCA1-dependent manner (PubMed:21750715).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab277948 is the carrier-free version of ab259904.

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	ING5 also known as Inhibitor of Growth Protein 5 is a protein with a molecular mass of approximately 28 kDa. It is part of the ING family of tumor suppressors and is known for its role in controlling cell growth and apoptosis. This protein is widely expressed in various tissues with notable expression in the brain lungs and liver. ING5 has DNA-binding capabilities and can modulate transcriptional activity affecting several downstream cellular processes.
Biological function summary	ING5 plays a role in regulating cell cycle progression and maintaining genomic stability. It functions within the NuA4 histone acetyltransferase complex influencing chromatin remodeling and gene expression. ING5 interacts with several other proteins like p53 and p300/CBP contributing to its capability to suppress unwanted cellular proliferation. This makes it an important player in maintaining proper cell function and preventing malignant transformation.
Pathways	ING5 interacts with multiple proteins to contribute to the p53 signaling pathway and the DNA damage response pathway. It modulates p53-dependent transcriptional activity enhancing the cell's ability to respond to DNA damage. ING5's role in these pathways links it to sister proteins in the ING family like ING1 and ING2 which also participate in p53-related responses and cell cycle control.
Associated diseases and disorders	Altered expression or mutation of ING5 has implications in cancer specifically breast cancer and gastric cancer. Its tumor-suppressive functions are compromised when ING5 is mutated or downregulated leading to increased proliferation and survival of cancerous cells. ING5 is connected to other proteins like p53 and HDAC1 in the context of these cancers highlighting its importance in maintaining normal cellular checks and balances.

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

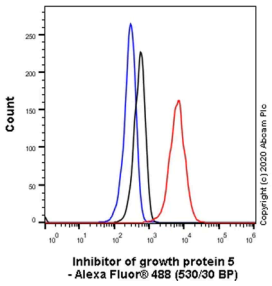
We do not recommend this combination. It is not covered by our product promise.

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.

9 product images

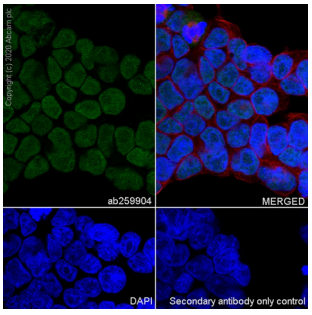


Flow Cytometry (Intracellular) - Anti-ING5 antibody [EPR23930-1] - BSA and Azide free (ab277948)

ING5 Flow Cytometry (Intracellular) staining using rabbit Anti-ING5 antibody

This data was developed using ab259904, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized HEK-293T (Human embryonic kidney epithelial cell) cells labelling ING5 with ab259904 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

A Goat anti rabbit IgG (Alexa Fluor®488, ab150077) at 1/2000 dilution was used as the secondary antibody.

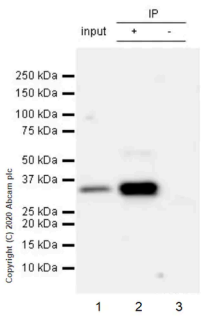


Immunocytochemistry/ Immunofluorescence - Anti-ING5 antibody [EPR23930-1] - BSA and Azide free (ab277948)

ING5 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-ING5 antibody

This data was developed using ab259904, the same antibody clone in a different buffer formulation.
mmunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HEK-293T cells labelling ING5 with ab259904 at 1/1000 (0.482 ug/ml) dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing strong nuclear staining in HEK-293T cells. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Immunoprecipitation - Anti-ING5 antibody [EPR23930-1] - BSA and Azide free (ab277948)

This data was developed using ab259904, the same antibody clone in a different buffer formulation.
ING5 was immunoprecipitated from 0.35 mg MCF7 (human breast adenocarcinoma epithelial cell), whole cell lysate with ab259904 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab259904 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/5000 dilution.

Lane 1: MCF7 (human breast adenocarcinoma epithelial cell), whole cell lysate 10 ug

Lane 2: ab259904 IP in MCF7 whole cell lysate

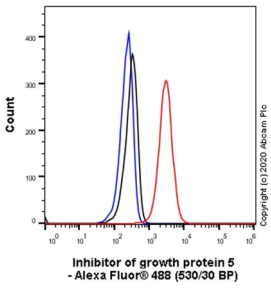
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab259904 in MCF7 whole cell lysate

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

Exposure time: 10 seconds.
All lanes:
Immunoprecipitation - Anti-ING5 antibody [EPR23930-1] (ab259904)

Predicted band size: 28 kDa

Observed band size: 32 kDa

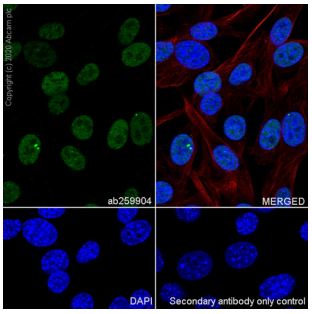


Flow Cytometry (Intracellular) - Anti-ING5 antibody [EPR23930-1] - BSA and Azide free (ab277948)

ING5 Flow Cytometry (Intracellular) staining using rabbit Anti-ING5 antibody

This data was developed using ab259904, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized NIH/3T3 (mouse embryonic fibroblast) cells labelling ING5 with ab259904 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.

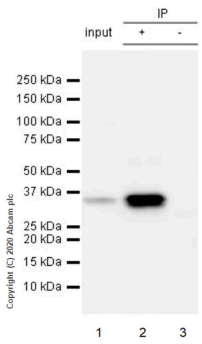


Immunocytochemistry/ Immunofluorescence - Anti-ING5 antibody [EPR23930-1] - BSA and Azide free (ab277948)

ING5 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-ING5 antibody

This data was developed using ab259904, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized NIH/3T3 cells labelling ING5 with ab259904 at 1/1000 (0.482 ug/ml) dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing strong nuclear staining in NIH/3T3 cells. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Immunoprecipitation - Anti-ING5 antibody [EPR23930-1] - BSA and Azide free (ab277948)

This data was developed using ab259904, the same antibody clone in a different buffer formulation.
ING5 was immunoprecipitated from 0.35 mg NIH/3T3 (mouse embryonic fibroblast), whole cell lysate with ab259904 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab259904 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/5000 dilution.

Lane 1: NIH/3T3 (mouse embryonic fibroblast), whole cell lysate 10 ug

Lane 2: ab259904 IP in NIH/3T3 whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab259904 in NIH/3T3 whole cell lysate

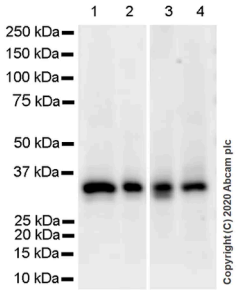
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 10 seconds.

All lanes:
Immunoprecipitation - Anti-ING5 antibody [EPR23930-1] (ab259904)

Predicted band size: 28 kDa

Observed band size: 32 kDa



Western blot - Anti-ING5 antibody [EPR23930-1] - BSA and Azide free (ab277948)

This data was developed using ab259904, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Exposure times: Lane1-2: 10 secondsLane3-4: 15 seconds.

All lanes:
Western blot - Anti-ING5 antibody [EPR23930-1] (ab259904) at 1/1000 dilution

Lane 1:
HEK-293T (human embryonic kidney epithelial cell), whole cell lysate at 20 µg

Lane 2:
HeLa (human cervix adenocarcinoma epithelial cell), whole cell lysate at 20 µg

Lane 3:
A549 (human lung carcinoma epithelial cell), whole cell lysate at 20 µg

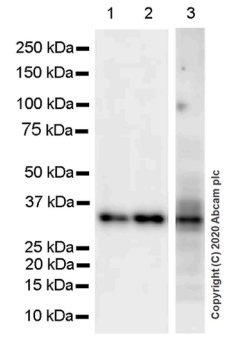
Lane 4:
NIH/3T3 (mouse embryonic fibroblast), whole cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/20000 dilution

Predicted band size: 28 kDa

Observed band size: 32 kDa



Western blot - Anti-ING5 antibody [EPR23930-1] - BSA and Azide free (ab277948)

This data was developed using ab259904, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST

Exposure time: Lane1-2: 7.5 secondsLane3: 70 seconds

All lanes:
Western blot - Anti-ING5 antibody [EPR23930-1] (ab259904) at 1/1000 dilution

Lane 1:
MCF7 (human breast adenocarcinoma epithelial cell), whole cell lysate at 20 µg

Lane 2:
MDA-MB-231 (human breast adenocarcinoma epithelial cell), whole cell lysate at 20 µg

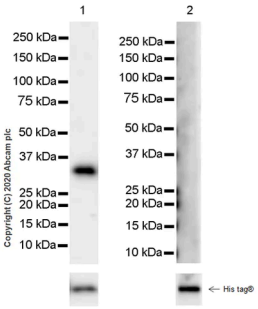
Lane 3:
C6 (rat glial tumor glial cell), whole cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/20000 dilution

Predicted band size: 28 kDa

Observed band size: 32 kDa



Western blot - Anti-ING5 antibody [EPR23930-1] - BSA and Azide free (ab277948)

This data was developed using ab259904, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Exposure times: Lane1: 8 seconds; Lane2: 3 minutes.

All lanes:
Western blot - Anti-ING5 antibody [EPR23930-1] (ab259904) at 1/1000 dilution

Lane 1:
His-tagged human ING5 recombinant protein, 20 ng

Lane 2:
His-tagged human ING4 recombinant protein, 20 ng

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/20000 dilution

Predicted band size: 28 kDa

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