abcam

ab302956

Anti-CHD6 antibody [EPR26714-1]

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	EPR26714-1
Purification technique	Affinity purification Protein A
Concentration	0.502 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information CHD6

Function	ATP-dependent chromatin-remodeling factor (PubMed:17027977, PubMed:28533432). Regulates transcription by disrupting nucleosomes in a largely non-sliding manner which strongly increases the accessibility of chromatin; nucleosome disruption requires ATP (PubMed:28533432). Activates transcription of specific genes in response to oxidative stress through interaction with NFE2L2. (Microbial infection) Acts as a transcriptional repressor of different viruses including influenza virus or papillomavirus. During influenza virus infection, the viral polymerase complex localizes CHD6 to inactive chromatin where it gets degraded in a proteasome independent-manner.

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

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

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 CHD6 protein also known as chromodomain-helicase-DNA-binding protein 6 is a member of the CHD family characterized by the presence of chromo domains and helicase domains. CHD6 has an approximate molecular mass of 290 kDa. It is widely expressed in human tissues with significant levels found in the brain heart and skeletal muscles. CHD6 plays a role in nucleosome remodeling which involves the alteration of chromatin structure to regulate DNA accessibility for transcription replication and repair.
Biological function summary	Chromodomain-helicase enzymes such as CHD6 help to reorganize chromatin structure making it critical for access and expression of genetic information. CHD6 functions within a complex system which influences diverse transcriptional programs through chromatin structure modulation. It primarily interacts with factors involved in chromatin dynamics allowing it to participate actively in numerous cellular processes essential for maintaining normal cell functions and genetic expression stability.
Pathways	The activity of CHD6 is essential in gene expression and DNA repair pathways. CHD6 is linked with the major transcription pathways such as RNA polymerase II transcription. It also frequently interacts with proteins like BRG1 another

	chromatin-remodeling factor to maintain precise regulation of these pathways. Together these proteins coordinate to ensure the correct transcriptional response and chromatin environment necessary for effective cell functioning.
Associated diseases and disorders	Aberrant CHD6 function associates with a range of pathophysiological conditions including neurodevelopmental disorders and cancer. Mutations or dysregulation in the expression of CHD6 can lead to conditions like CHARGE syndrome characterized by multiple congenital anomalies. CHD6's interaction with proteins like p53 a well-known tumor suppressor highlights its involvement in pathways that maintain genomic integrity and prevent tumorigenesis. Understanding these interactions can provide insight into therapeutic targets for related diseases.

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

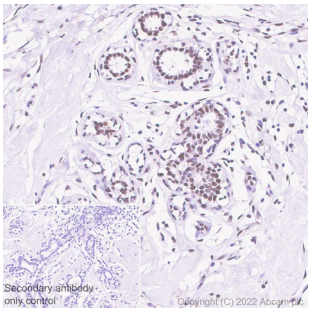
We do not recommend this combination. It is not covered by our product promise.

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.

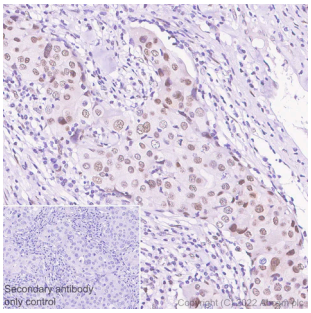
7 product images



Immunohistochemistry - Anti-CHD6 antibody [EPR26714-1] (ab302956)

CHD6 Immunohistochemistry staining using rabbit Anti-CHD6 antibody

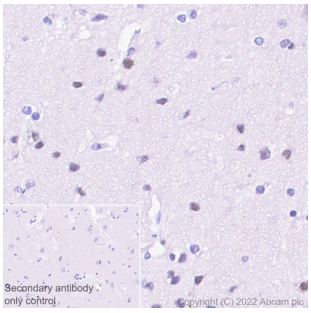
Immunohistochemical analysis of paraffin-embedded Human breast tissue labeling CHD6 with ab302956 at 1/50 (10.04 ug/ml) followed by a Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) at Ready to use dilution. Nuclear staining on human breast (PMID: 22569290). The section was incubated with ab302956 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 Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) at Ready to use dilution. Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry - Anti-CHD6 antibody [EPR26714-1] (ab302956)

CHD6 Immunohistochemistry staining using rabbit Anti-CHD6 antibody

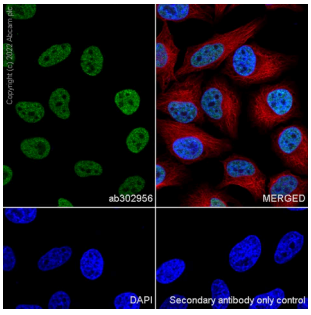
Immunohistochemical analysis of paraffin-embedded Human breast cancer tissue labeling CHD6 with ab302956 at 1/50 (10.04 ug/ml) followed by a Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) at Ready to use dilution. Nuclear staining on human breast cancer(PMID: 22569290). The section was incubated with ab302956 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 Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) at Ready to use dilution. Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry - Anti-CHD6 antibody [EPR26714-1] (ab302956)

CHD6 Immunohistochemistry staining using rabbit Anti-CHD6 antibody

Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labeling CHD6 with ab302956 at 1/50 (10.04 ug/ml) followed by a Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) at Ready to use dilution. Nuclear staining on human cerebrum. The section was incubated with ab302956 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 Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) at Ready to use dilution. Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

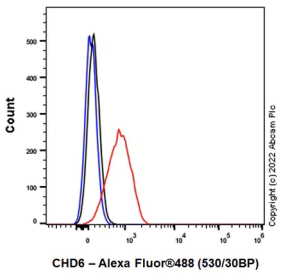


Immunocytochemistry - Anti-CHD6 antibody [EPR26714-1] (ab302956)

CHD6 Immunocytochemistry staining using rabbit Anti-CHD6 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HeLa (human cervix adenocarcinoma epithelial cell) cells labelling CHD6 with ab302956 at 1/50 (10.04 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2ug/ml dilution (Green). Confocal image showing nuclear staining in HeLa cell line.Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). is observed. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/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 2ug/ml dilution.

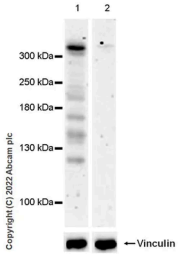


Flow Cytometry (Intracellular) - Anti-CHD6 antibody [EPR26714-1] (ab302956)

CHD6 Flow Cytometry (Intracellular) staining using rabbit Anti-CHD6 antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HeLa (human cervix adenocarcinoma epithelial cell) cells labelling CHD6 with ab302956 at 1/50 dilution (1ug) (Red) (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, ab150081) at 1/2000 dilution was used as the secondary antibody.

Western blot - Anti-CHD6 antibody [EPR26714-1] (ab302956)



CHD6 Western blot staining using rabbit Anti-CHD6 antibody

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

The bands beneath the target band (315 kDa) are likely to be degraded target fragments.

All lanes:
Western blot - Anti-CHD6 antibody [EPR26714-1] (ab302956) at 1/1000 dilution

Lane 1:
Hela (human cervix adenocarcinoma epithelial cell) transfected with scrambled siRNA control, whole cell lysate at 20 µg

Lane 2:
Hela transfected with siRNA specifically targeting CHD6, whole cell lysate at 20 µg

Secondary

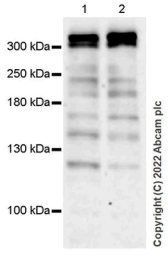
All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 305 kDa

Observed band size: 315 kDa

Exposure time: 180s

Western blot - Anti-CHD6 antibody [EPR26714-1] (ab302956)



CHD6 Western blot staining using rabbit Anti-CHD6 antibody

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

The bands beneath the target band (315 kDa) are likely to be degraded target fragments.

Lysates were freshly made and used for Western blotting immediately to minimize protein degradation.

All lanes:
Western blot - Anti-CHD6 antibody [EPR26714-1] (ab302956) at 1/1000 dilution

Lane 1:
Hela (human cervix adenocarcinoma epithelial cell), whole cell lysate at 20 µg

Lane 2:
293T (human embryonic kidney epithelial cell), whole cell lysate at 20 µg

Secondary

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

Exposure time: 180s

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