abcam

ab308516

Anti-HOXA10 antibody [EPR27317-76]

Recombinant | RabMAb | Advanced Validation | 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	EPR27317-76
Purification technique	Affinity purification Protein A
Concentration	0.476 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ChIP-seq

Tested

Species	Human
Dilution info	8 µg for 10^7 Cells
Notes	-

Not recommended

Species	Recombinant fragment - Human, Mouse, Rat, Synthetic peptide - Human
Dilution info	-
Notes	-

WB

Tested

Species	Recombinant fragment - Human
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat, Synthetic peptide - Human
Dilution info	-
Notes	-

Dot

Tested

Species	Synthetic peptide - Human
Dilution info	1/1000
Notes	-

Expected

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

Not recommended

Species	Recombinant fragment - Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Mouse, Recombinant fragment - Human, Rat, Synthetic peptide - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Mouse, Recombinant fragment - Human, Rat, Synthetic peptide - Human
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Not recommended

Species	Recombinant fragment - Human, Mouse, Rat, Synthetic peptide - Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat, Recombinant fragment - Human, Synthetic peptide - Human
Dilution info	-
Notes	-

Target data

See full target information HOXA10

Function	Sequence-specific transcription factor which is part of a developmental regulatory system that provides cells with specific positional identities on the anterior-posterior axis. Binds to the DNA sequence 5'-AA[AT]TTTTATTAC-3'.

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 homeobox protein A10 (HOXA10) also known as HOX1H is a transcription factor with important functions in gene regulation. HOXA10 has a molecular mass of approximately 38 kDa. It is part of the homeobox gene family and is expressed predominantly in the developing uterus and the hematopoietic system. This expression pattern indicates its role in development and differentiation processes particularly in these tissues where it controls several developmental genes.
Biological function summary	HOXA10 is involved in developmental regulation of gene expression. It acts as a transcription factor and binds to DNA sequences to regulate expression of target genes necessary for proper morphogenesis. HOXA10 often operates within multi-protein complexes cooperating with other proteins to exert its function efficiently. By orchestrating gene transcription HOXA10 contributes to the formation and development of certain organs and tissues.
Pathways	The regulatory role of HOXA10 is evident in the Wnt and ERK signaling pathways. These pathways involve critical development and morphogenesis functions where HOXA10 acts as a transcriptional regulator. In the Wnt pathway HOXA10 interacts with proteins like β-catenin to influence cell fate decisions. In the ERK pathway it influences cellular proliferation and differentiation processes integrating signals that contribute to organ development.
Associated diseases and disorders	HOXA10 has been associated with infertility and certain forms of leukemia. Mutations or altered expression of HOXA10 can disrupt normal uterine development leading to infertility issues. Additionally aberrations in HOXA10 expression are linked with leukemia where its interaction with proteins like MEIS1 alters cell cycle regulation and contributes to oncogenic transformation. Understanding these disease associations offers potential therapeutic targets for managing 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

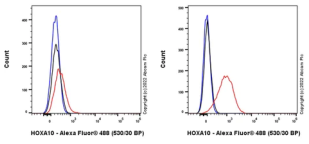
We do not recommend this combination. It is not covered by our product promise.

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.

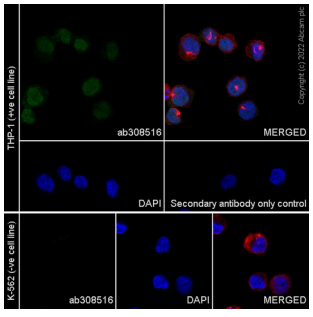
Full details and terms and conditions can be found here:
Terms & Conditions.

10 product images



Flow Cytometry (Intracellular) - Anti-HOXA10 antibody [EPR27317-76] (ab308516)

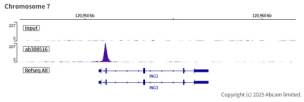
Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized K-562 (human chronic myelogenous leukemia lymphoblast, Left) / THP-1 (human monocytic leukemia monocyte, Right) cells labelling HOXA10 with ab308516 at 1/50 dilution (1 ug)/Red (Red) compared with a Rabbit monoclonal IgG (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 1/5000 dilution was used as the secondary antibody. Negative control: K-562 (PMID: 10766757).



Immunocytochemistry/ Immunofluorescence - Anti-HOXA10 antibody [EPR27317-76] (ab308516)

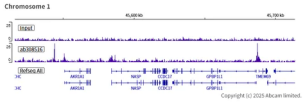
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized THP-1 (human monocytic leukemia monocyte) cells labelling HOXA10 with ab308516 at 1/50 (9.52 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green). Confocal image showing nuclear and weak cytoplasmic staining in THP-1 cell line.Negative control: K-562 (PMID 10766757).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 2 ug/ml dilution.



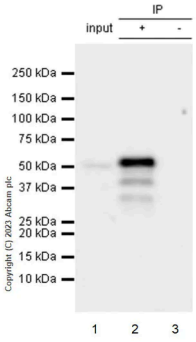
ChIP-sequencing - Anti-HOXA10 antibody [EPR27317-76] (ab308516)

Chromatin was prepared from THP-1 cells. Cells were fixed with 1% formaldehyde for 10 minutes. ChIP was performed with 10^7 cells and 8 µg of ab308516 [EPR27317-76]. ChIP DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 30 million reads. The Input control is also shown.



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Immunoprecipitation - Anti-HOXA10 antibody [EPR27317-76] (ab308516)

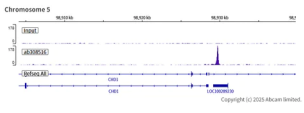
HOXA10 was immunoprecipitated from 0.35 mg THP-1 whole cell lysate with ab308516 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab308516 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution. Lane 1: THP-1 (human monocytic leukemia monocyte) whole cell lysate Lane 2: ab308516 IP in THP-1 whole cell lysate Lane 3:Rabbit monoclonal IgG (ab172730) instead of ab308516 in THP-1 whole cell lysate Blocking and dilution buffer and concentration: 5% NFDM/TBST. Exposure time: 32 seconds
All lanes:
Immunoprecipitation - Anti-HOXA10 antibody [EPR27317-76] (ab308516) at 1/30 dilution

All lanes:
THP-1 (human monocytic leukemia monocyte) whole cell lysate

Secondary

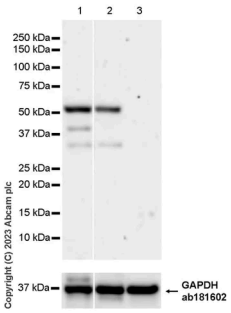
All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 32s



ChIP-sequencing - Anti-HOXA10 antibody [EPR27317-76] (ab308516)

Chromatin was prepared from THP-1 cells. Cells were fixed with 1% formaldehyde for 10 minutes. ChIP was performed with 10^7 cells and 8 µg of ab308516 [EPR27317-76]. ChIP DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 30 million reads. The Input control is also shown.



Western blot - Anti-HOXA10 antibody [EPR27317-76] (ab308516)

Blocking and diluting buffer and concentration: 5% NFDM/TBST Negative control: K-562(PMID:7527557) Bands below 50 kDa may due to degradation. In Western blot, anti-GAPDH antibody (ab181602) loading control staining at 1/200000 dilution. Exposure time: 114 seconds
All lanes:
Western blot - Anti-HOXA10 antibody [EPR27317-76] (ab308516) at 1/1000 dilution

Lane 1:
THP-1 (human monocytic leukemia monocyte) whole cell lysate at 20 µg

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

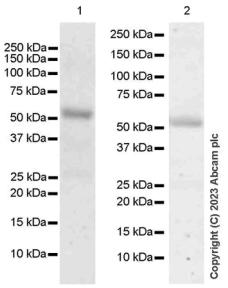
Lane 3:
K562 (human chronic myelogenous leukemia lymphoblast) whole cell lysate at 20 µg

Secondary

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

Observed band size: 50 kDa

Exposure time: 114s



Western blot - Anti-HOXA10 antibody [EPR27317-76] (ab308516)

HOXA10 Western blot staining using rabbit Anti-HOXA10 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
This blot was developed using a high sensitivity ECL substrate. The high-sensitivity ECL substrate used allows for the detection of proteins in the mid-femtogram range.

All lanes:
Western blot - Anti-HOXA10 antibody [EPR27317-76] (ab308516) at 1/1000 dilution

Lane 1:
Human bone marrow tissue lysate at 20 µg

Lane 2:
Human testis tissue lysate at 20 µg

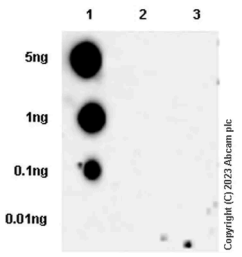
Secondary

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

Developed using the ECL technique.

Observed band size: 50 kDa

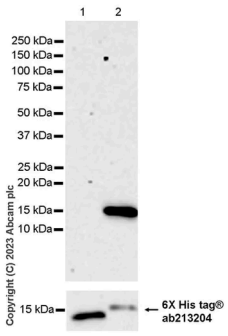
Exposure time: 180s



Dot Blot - Anti-HOXA10 antibody [EPR27317-76] (ab308516)

HOXA10 Dot Blot staining using rabbit Anti-HOXA10 antibody

Dot blot analysis of HOXA10 using ab308516 at 1:1000 (0.476 ug/ml) followed by a Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1:100,000 dilution. Lane 1: Human Homeobox protein Hox-A10 peptide Lane 2: Human Homeobox protein Hox-C10 peptide Lane 3: Human Homeobox protein Hox-D10 peptide Exposure time: 180 seconds Blocking and diluting buffer and concentration: 5% NFDM/TBST



Western blot - Anti-HOXA10 antibody [EPR27317-76] (ab308516)

Blocking and diluting buffer and concentration: 5% NFDM/TBST This antibody does not cross-react with human HOXA9. In Western blot, anti-His antibody (ab213204) staining at 1/5000 dilution. Exposure time: 180 seconds
All lanes:
Western blot - Anti-HOXA10 antibody [EPR27317-76] (ab308516) at 1/1000 dilution

Lane 1:
His-tagged human HOXA9 recombinant protein fragment at 10 ng

Lane 2:
His-tagged human HOXA10 recombinant protein fragment at 10 ng

Secondary

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

Observed band size: 15 kDa

Exposure time: 180s

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