abcam

ab284782

Anti-HOXB5 antibody [EP2827] - 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	EP2827
Purification technique	Affinity purification Protein A
Concentration	1.008 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Mouse
Dilution info	1/100 - 1/500
Notes	-

Species	Rat
Dilution info	1/100 - 1/500
Notes	-

Species	Human
Dilution info	1/100 - 1/500
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/100
Notes	-

Species	Rat
Dilution info	1/100
Notes	-

Species	Human
Dilution info	1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

Target data

See full target information HOXB5

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.

Storage

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

Notes

ab284782 is the carrier-free version of ab109375

The production method for this product has been changed from hybridoma to recombinant on 23rd April 2026

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.

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.

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	HOXB5 also known as Homeobox B5 acts as a transcription factor within the body. This gene-encoded protein weighs approximately 29 kDa and plays an essential role in the development and differentiation of various tissues. It exhibits expression in a range of tissues including the blood and nervous systems. By binding to DNA HOXB5 assists in regulating the expression of genes important for body patterning and cellular function.
Biological function summary	The HOXB5 protein influences early development processes and organogenesis. It contributes significantly to the establishment of anterior-posterior body axis during embryonic development. HOXB5 does not form part of a larger complex but interacts with other transcription factors and DNA regions to carry out its functions. Its regulation of gene expression has implications for cellular differentiation and tissue specification.
Pathways	HOXB5 plays a significant role in the Wnt signaling and retinoic acid signaling pathways. These pathways govern processes such as cell growth differentiation and axonal development. HOXB5 interacts with other proteins like β-catenin in the Wnt pathway influencing developmental processes through these interactions. Its activity contributes to the orchestration of developmental signals that ensure proper morphological outcomes.
Associated diseases and disorders	Mutations or dysregulation of HOXB5 have connections to certain types of cancer and developmental disorders such as cervical cancer and congenital defects. In these contexts HOXB5 often acts together with proteins like retinoic acid receptors highlighting its role in aberrant cellular proliferation and incorrect tissue formation. Understanding HOXB5's involvement in these diseases highlights its importance as a potential therapeutic target.

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.

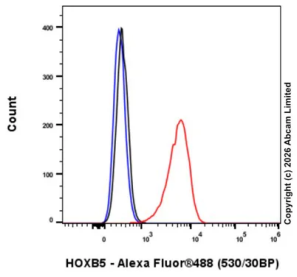
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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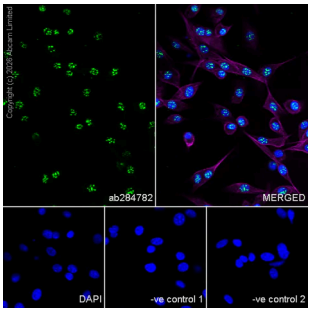
7 product images



Flow Cytometry (Intracellular) - Anti-HOXB5 antibody [EP2827] - BSA and Azide free (ab284782)

HOXB5 Flow Cytometry (Intracellular) staining of U-87 MG cells using rabbit Anti-HOXB5 antibody

Flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized U-87 MG cells labeling HOXB5 with ab284782 at 1/100 dilution (Red) compared with an isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue).
Cells were fixed with 100µl 4% PFA for 10 min at RT, then permeabilized with 100µl 90% methanol for 30 min (-20°C) followed by blocking with 10% goat serum for 1h at room temperature. Incubate ab284782 for 30 min at room temperature (RT) and then incubate Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150081) for 30 min at room temperature.

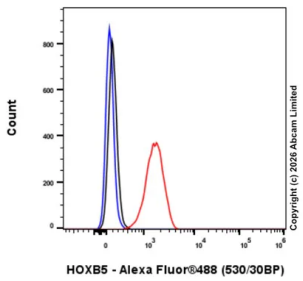


Immunocytochemistry/ Immunofluorescence - Anti-HOXB5 antibody [EP2827] - BSA and Azide free (ab284782)

HOXB5 Immunocytochemistry/ Immunofluorescence staining of U-87 MG cells using rabbit Anti-HOXB5 antibody

Immunofluorescent analysis of 100% methanol-fixed, 0.1% TritonX-100 permeabilized U-87 MG cells labelling HOXB5 with ab284782 at 1/500 dilution , followed by Alexa Fluor® 488-conjugated Goat anti-Rabbit secondary antibody (ab150077) at 1/1000 dilution (Green).

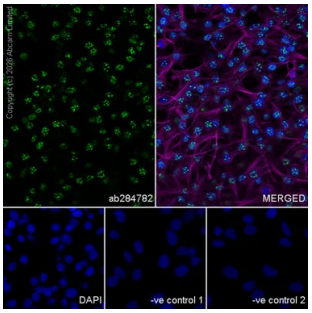
Cells were incubated overnight at 4° C, followed by Alexa Fluor® 488-conjugated Goat anti-Rabbit secondary antibody (ab150077) at RT for 45 min. ab7291 Anti-beta Tubulin, used as a counterstain at 1/1000 dilution, was co-incubated with ab284782 overnight at 4° C, followed by Alexa Fluor® 594 Goat Anti-Mouse secondary (ab150120) at 1/1000 dilution at RT for 45 min (Magenta). Nucleus were visualized using DAPI (Blue).



Flow Cytometry (Intracellular) - Anti-HOXB5 antibody [EP2827] - BSA and Azide free (ab284782)

HOXB5 Flow Cytometry (Intracellular) staining of C6 cells using rabbit Anti-HOXB5 antibody

Flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized C6 cells labeling HOXB5 with ab284782 at 1/100 dilution (Red) compared with an isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue).
Cells were fixed with 100µl 4% PFA for 10 min at RT, then permeabilized with 100µl 90% methanol for 30 min (-20°C) followed by blocking with 10% goat serum for 1h at room temperature. Incubate ab284782 for 30 min at room temperature (RT) and then incubate Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150081) for 30 min at room temperature.

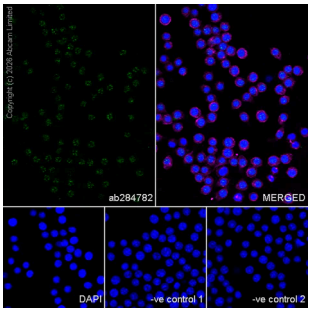


Immunocytochemistry/ Immunofluorescence - Anti-HOXB5 antibody [EP2827] - BSA and Azide free (ab284782)

HOXB5 Immunocytochemistry/ Immunofluorescence staining of C6 cells using rabbit Anti-HOXB5 antibody

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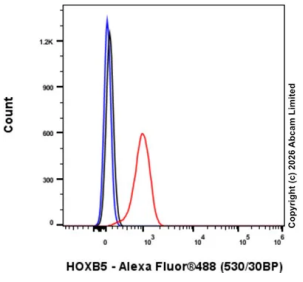


Immunocytochemistry/ Immunofluorescence - Anti-HOXB5 antibody [EP2827] - BSA and Azide free (ab284782)

HOXB5 Immunocytochemistry/ Immunofluorescence staining of RAW 264.7 cells using rabbit Anti-HOXB5 antibody

Immunofluorescent analysis of 100% methanol-fixed, 0.1% TritonX-100 permeabilized RAW 264.7 cells labelling HOXB5 with ab284782 at 1/500 dilution , followed by Alexa Fluor® 488-conjugated Goat anti-Rabbit secondary antibody (ab150077) at 1/1000 dilution (Green).

Cells were incubated overnight at 4° C, followed by Alexa Fluor® 488-conjugated Goat anti-Rabbit secondary antibody (ab150077) at RT for 45 min. ab7291 Anti-beta Tubulin, used as a counterstain at 1/1000 dilution, was co-incubated with ab284782 overnight at 4° C, followed by Alexa Fluor® 594 Goat Anti-Mouse secondary (ab150120) at 1/1000 dilution at RT for 45 min (Magenta). Nucleus were visualized using DAPI (Blue).

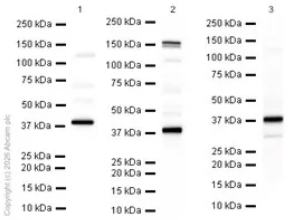


Flow Cytometry (Intracellular) - Anti-HOXB5 antibody [EP2827] - BSA and Azide free (ab284782)

HOXB5 Flow Cytometry (Intracellular) staining of RAW 264.7 cells using rabbit Anti-HOXB5 antibody

Flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized RAW 264.7 cells labeling HOXB5 with ab284782 at 1/100 dilution (Red) compared with an isotype control and

an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue).
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Western blot - Anti-HOXB5 antibody [EP2827] - BSA and Azide free (ab284782)

HOXB5 Western blot staining using rabbit Anti-HOXB5 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
Exposure time:
Lane 1: 7 seconds;
Lane 2: 3 seconds;
Lane 3: 20 seconds.
All lanes:
Western blot - Anti-HOXB5 antibody [EP2827] - BSA and Azide free (ab284782) at 1/1000 dilution

Lane 1:
Human lung lysate at 15 µg

Lane 2:
RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 15 µg

Lane 3:
Rat brain lysate at 15 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051)

Predicted band size: 40 kDa

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