abcam

ab309665

Alexa Fluor® 488 Anti-HOXB4 antibody [EP1919Y]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 488
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP1919Y
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Target Binding Affinity

Expected

Species	Human

Dilution info	Use at an assay dependent concentration.
Notes	-

Antibody Labelling

Expected

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

Flow Cyt (Intra)

Expected

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

ICC/IF

Expected

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

IHC-P

Expected

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

Target data

See full target information HOXB4

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 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, Store in the dark

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.

How are conjugated primary antibodies validated?
This conjugated primary antibody is released using a quantitative quality control method that evaluates binding affinity post-conjugation and efficiency of antibody labeling.
For suitable applications and species reactivity, please refer to the unconjugated version of this clone.

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	HOXB4 is a homeobox protein that functions as a transcription factor and is alternatively known as Homeobox protein Hox-B4. It plays a role in the regulation of gene expression influencing cell differentiation and development. The molecular weight of HOXB4 is approximately 28 kDa. This protein is mostly expressed in embryonic tissues and certain adult tissues including the bone marrow where it plays a part in hematopoiesis.
Biological function summary	HOXB4 is essential in maintaining stem cell populations and directing hematopoietic stem cell differentiation. It does not form part of any large complex but it interacts with DNA to control the expression of specific genes critical for cellular development. By regulating these genes HOXB4 influences the proper formation of body structures during embryogenesis.
Pathways	HOXB4 is involved in the hematopoietic cell lineage and the anterior-posterior patterning pathway. It works alongside other Hox family proteins to establish the identity of cells and tissues along the body axis. A vital interaction exists with HOXA9 within these pathways which embodies collaborative control over blood cell formation and differentiation.
Associated diseases and disorders	Abnormalities in HOXB4 expression link to certain types of leukemia and other blood-related disorders. Overexpression can lead to increased proliferation of hematopoietic stem cells causing a potential risk in developing acute myeloid leukemia. Interaction with proteins like HOXA9 has been observed in these contexts indicating a complex network of genetic regulation disruption associated with the onset of myeloproliferative 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.

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