abcam

ab187407

Anti-GDF11 + GDF8/Myostatin antibody [EPR4567(2)] - 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	EPR4567(2)
Purification technique	Affinity purification Protein A
Dissociation constant	6.4 x 10^{-11} M
Concentration	0.982 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human

Dilution info	-
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

WB

Tested

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information GDF11

Function	Secreted signal that acts globally to regulate anterior/posterior axial patterning during development. May play critical roles in patterning both mesodermal and neural tissues (By similarity). It is required for proper vertebral patterning and orofacial development (PubMed:31215115). Signals through activin receptors type-2, ACVR2A and ACVR2B, and activin receptors type-1, ACVR1B, ACVR1C and TGFBR1 leading to the phosphorylation of SMAD2 and SMAD3 (PubMed:28257634).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab187407 is the carrier-free version of ab124721.

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.

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

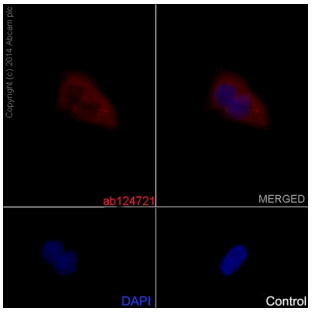
We do not recommend this combination. It is not covered by our product promise.

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.

6 product images

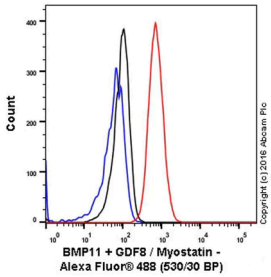


Immunocytochemistry/ Immunofluorescence - Anti-GDF11 + GDF8/Myostatin antibody [EPR4567(2)] - BSA and Azide free (ab187407)

GDF11 + GDF8/Myostatin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-GDF11 + GDF8/Myostatin antibody

Immunocytochemistry/Immunofluorescence analysis of A549 cells labelling BMP11 + GDF8/Myostatin with purified ab124721 at 1/250. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% triton X-100. ab150078, an Alexa Fluor® 555-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. Control: primary antibody (1/250) and secondary antibody, ab150113, an Alexa Fluor® 488-conjugated goat anti-mouse IgG (1/500).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab124721).



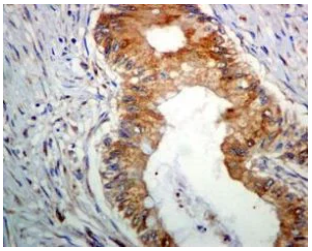
Flow Cytometry (Intracellular) - Anti-GDF11 + GDF8/Myostatin antibody [EPR4567(2)] - BSA and Azide free (ab187407)

GDF11 + GDF8/Myostatin Flow Cytometry (Intracellular) staining using rabbit Anti-GDF11 + GDF8/Myostatin antibody

ab124721 staining GDF11 + GDF8/Myostatin in the human cell line HeLa (human cervix adenocarcinoma) by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde, permabilised with 90% methanol and the sample was incubated with the primary antibody at a dilution of 1/250. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.
Isoytype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)

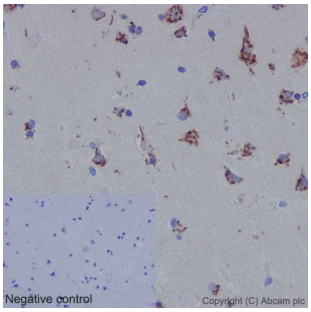
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab124721).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GDF11 + GDF8/Myostatin antibody [EPR4567(2)] - BSA and Azide free (ab187407)

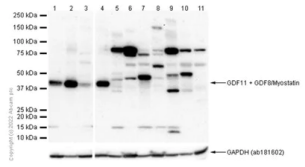
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon adenocarcinoma tissue labelling BMP11 + GDF8/Myostatin with unpurified ab124721 at 1/500 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab124721).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GDF11 + GDF8/Myostatin antibody [EPR4567(2)] - BSA and Azide free (ab187407)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human cerebral cortex tissue labelling BMP11 + GDF8/Myostatin with purified ab124721 at 1/2500. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. A prediluted HRP-polymer conjugated anti-rabbit IgG was used as the secondary antibody. Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab124721).



Western blot - Anti-GDF11 + GDF8/Myostatin antibody [EPR4567(2)] - BSA and Azide free (ab187407)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab124721). Blocking and diluting buffer: 5% NFDM/TBST This antibody is unsuitable to detect tissue samples.
All lanes:
Western blot - Anti-GDF11 + GDF8/Myostatin antibody [EPR4567(2)] (ab124721) at 1/1000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate at 20 µg

Lane 3:
C2C12 (Mouse myoblasts myoblast) whole cell lysate at 20 µg

Lane 4:
C6 (Rat glial tumor glial cell) whole cell lysate at 20 µg

Lane 5:
Rat liver lysate at 20 µg

Lane 6:
Rat heart lysate at 20 µg

Lane 7:
Rat kidney lysate at 20 µg

Lane 8:
Mouse brain lysate at 20 µg

Lane 9:
Mouse liver lysate at 20 µg

Lane 10:
Human liver lysate at 20 µg

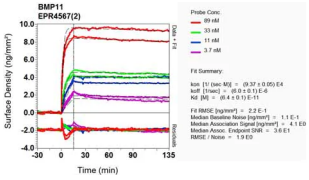
Lane 11:
Human skeletal muscle lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Observed band size: 45 kDa

Exposure time: 5s



OI-RD Scanning - Anti-GDF11 + GDF8/Myostatin antibody [EPR4567(2)] - BSA and Azide free (ab187407)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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