

Product datasheet

Anti-BMP4 antibody [EPR6211] ab124715

Recombinant RabMAb

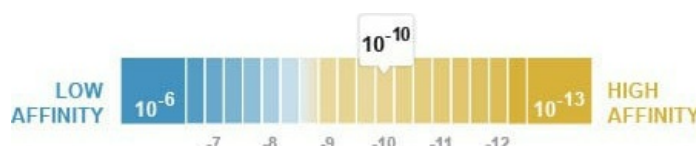
[20 References](#) [9 Images](#)

Overview

Product name	Anti-BMP4 antibody [EPR6211]
Description	Rabbit monoclonal [EPR6211] to BMP4
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), WB, IP, IHC-P, ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to Human BMP4 aa 350 to the C-terminus.
Positive control	WB: Human fetal liver, A549, HeLa, A431, and Human heart lysates IP: A549 whole cell lysate. IHC-P: Human breast cancer, and colon Tissue Flow Cyt (intra): HeLa cells ICC/IF: A549 cells
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Dissociation constant (K _D)	K _D = 1.94 x 10 ⁻¹⁰ M



[Learn more about K_D](#)

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR6211
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab124715 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/100 - 1/500. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/10000 - 1/50000. Predicted molecular weight: 47 kDa.
IP		1/10 - 1/100.
IHC-P		1/400. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. For unpurified use at 1/100 - 1/250. See IHC antigen retrieval protocols.
ICC/IF		1/500. For unpurified use at 1/50 - 1/100.

Target

Function	Induces cartilage and bone formation. Also act in mesoderm induction, tooth development, limb formation and fracture repair. Acts in concert with PTHLH/PTHRP to stimulate ductal outgrowth during embryonic mammary development and to inhibit hair follicle induction.
Tissue specificity	Expressed in the lung and lower levels seen in the kidney. Present also in normal and neoplastic prostate tissues, and prostate cancer cell lines.
Involvement in disease	Defects in BMP4 are the cause of microphthalmia syndromic type 6 (MCOPS6) [MIM:607932]; also known as microphthalmia and pituitary anomalies or microphthalmia with brain and digit developmental anomalies. Microphthalmia is a clinically heterogeneous disorder of eye formation, ranging from small size of a single eye to complete bilateral absence of ocular tissues (anophthalmia). In many cases, microphthalmia/anophthalmia occurs in association with syndromes that include non-ocular abnormalities. MCOPS6 is characterized by microphthalmia/anophthalmia associated with facial, genital, skeletal, neurologic and endocrine anomalies. Defects in BMP4 are the cause of non-syndromic orofacial cleft type 11 (OFC11) [MIM:600625].

Non-syndromic orofacial cleft is a common birth defect consisting of cleft lips with or without cleft palate. Cleft lips are associated with cleft palate in two-third of cases. A cleft lip can occur on one or both sides and range in severity from a simple notch in the upper lip to a complete opening in the lip extending into the floor of the nostril and involving the upper gum. OFC11 is an unusual anomaly consisting of a paramedian scar of the upper lip with an appearance suggesting that a typical cleft lip was corrected in utero.

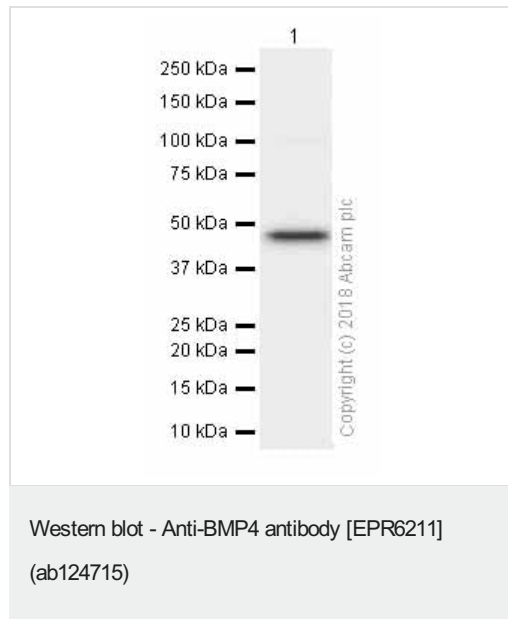
Sequence similarities

Belongs to the TGF-beta family.

Cellular localization

Secreted > extracellular space > extracellular matrix.

Images



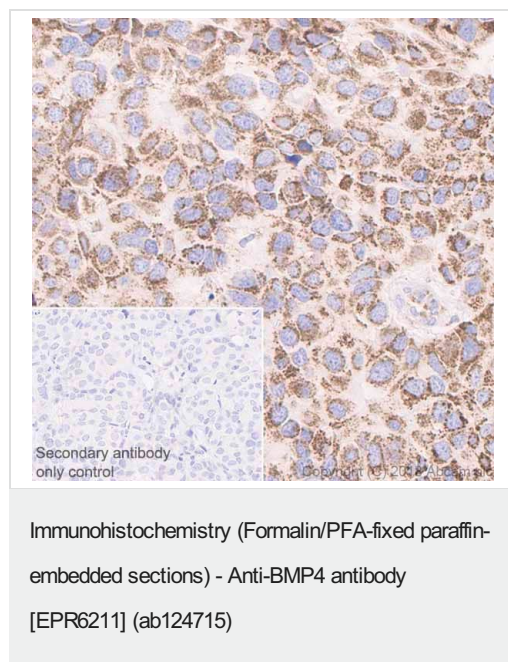
Anti-BMP4 antibody [EPR6211] (ab124715) at 0.05 µg/ml (purified)
+ HeLa (Human cervix adenocarcinoma epithelial cell) whole cell
lysates at 15 µg

Secondary

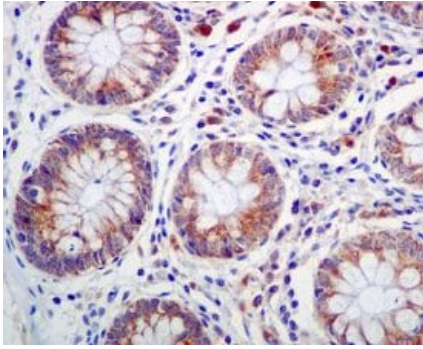
Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 47 kDa

Blocking and diluting buffer: 5% NFDM/TBST



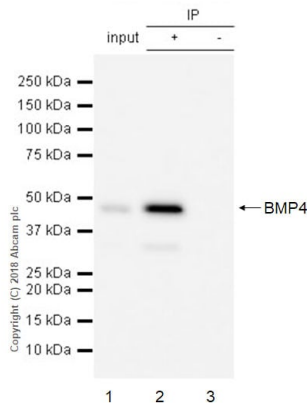
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human breast cancer tissue sections labeling BMP4 with Purified ab124715 at 1:400 dilution (2.44 µg/ml). Heat mediated antigen retrieval was performed using [ab93684](#) (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BMP4 antibody
[EPR6211] (ab124715)

Unpurified ab124715, at 1/100, staining BMP4 in paraffin embedded Human colon tissue by Immunohistochemistry.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunoprecipitation - Anti-BMP4 antibody
[EPR6211] (ab124715)

ab124715 (purified) at 1:60 dilution (2µg) immunoprecipitating BMP4 in A549 whole cell lysate.

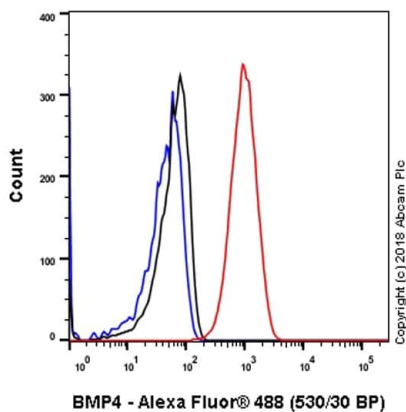
Lane 1 (input): A549 (Human lung carcinoma epithelial cell) whole cell lysate 10µg

Lane 2 (+): ab124715 & A549 whole cell lysate

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab124715 in A549 whole cell lysate

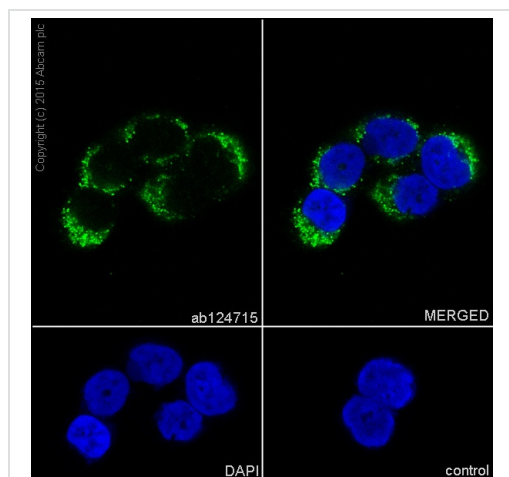
For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used for detection at 1:1000 dilution.

Blocking and diluting buffer: 5% NFDM/TBST.



Flow Cytometry (Intracellular) - Anti-BMP4 antibody
[EPR6211] (ab124715)

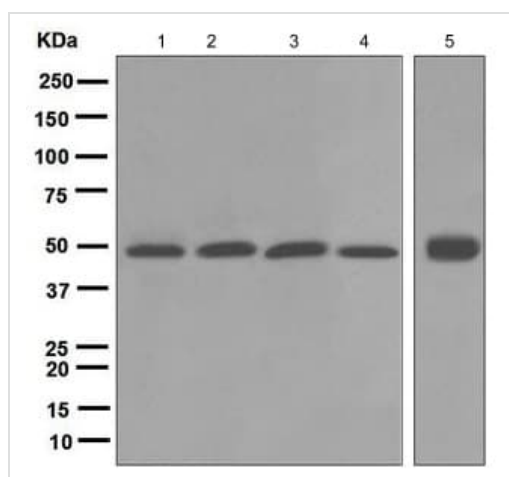
Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling BMP4 with purified ab124715 at 1/120 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-BMP4 antibody [EPR6211] (ab124715)

Immunocytochemistry/Immunofluorescence analysis of A549 (human lung carcinoma) cells labelling BMP4 with purified ab124715 at 1/500. Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. **ab150077**, Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. Nuclei were counterstained with DAPI (blue).

Secondary Only Control: PBS was used instead of the primary antibody as the negative control.



Western blot - Anti-BMP4 antibody [EPR6211] (ab124715)

All lanes : Anti-BMP4 antibody [EPR6211] (ab124715) at 1/10000 dilution (Unpurified)

Lane 1 : Human fetal liver lysate

Lane 2 : A549 lysate

Lane 3 : HeLa lysate

Lane 4 : A431 lysate

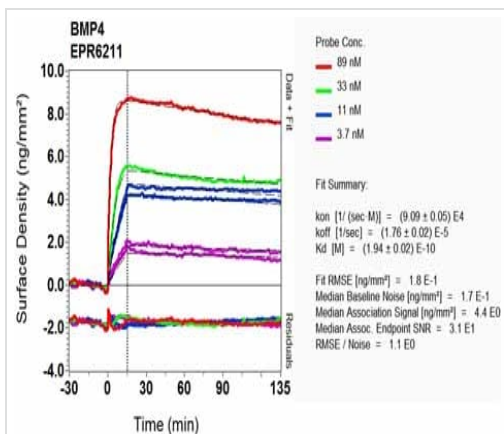
Lane 5 : Human heart lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 47 kDa



SPR Scanning - Anti-BMP4 antibody [EPR6211]
(ab124715)

Produced using unpurified ab124715

Equilibrium dissociation constant (K_D)

Learn more about K_D

[Click here to learn more about \$K_D\$](#)

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-BMP4 antibody [EPR6211] (ab124715)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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