# abcam

# Product datasheet

# Anti-BMP2 antibody [EPR20807] ab214821

ועלשעבע RabMAb

37 References 画像数7

#### 製品の概要

製品名 Anti-BMP2 antibody [EPR20807]

製品の詳細 Rabbit monoclonal [EPR20807] to BMP2

由来種 Rabbit

アプリケーション 適用あり: Flow Cyt (Intra), WB, ICC/IF

種交差性 交差種: Mouse, Rat, Human

免疫原 Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

ポジティブ・コントロール WB: Caco-2, Saos-2, C2C12, RAW 264.7, C6 and LNCaP whole cell lysates; Mouse cartilage

tissue lysate; Rat spleen tissue lysate; Human lung cancer and fetal kidney tissue lysates. ICC/IF:

LNCaP and RAW 264.7 cells. Flow Cyt (intra): RAW 264.7 cells.

特記事項 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 production

For more information see here.

Our  $\mathsf{RabMAb}^{\texttt{®}}$  technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

#### 製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

バッファー pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), PBS

精製度 Protein A purified

ポリモノ モノクローナル EPR20807 クローン名

#### アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab214821の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Flow Cyt (Intra)		1/700.
WB		1/1000. Detects a band of approximately 14,18,30 kDa (predicted molecular weight: 44 kDa).
ICC/IF		1/100.

#### ターゲット情報

機能 Induces cartilage and bone formation.

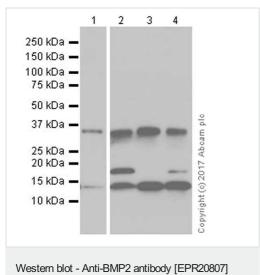
組織特異性 Particularly abundant in lung, spleen and colon and in low but significant levels in heart, brain,

placenta, liver, skeletal muscle, kidney, pancreas, prostate, ovary and small intestine.

**配列類似性** Belongs to the TGF-beta family.

細胞内局在 Secreted.

#### 画像



Western blot - Anti-BMP2 antibody [EPR20807] (ab214821)

**All lanes :** Anti-BMP2 antibody [EPR20807] (ab214821) at 1/1000 dilution

Lane 1 : Caco-2 (human colorectal adenocarcinoma cell line)

whole cell lysate

Lane 2: Saos-2 (human osteosarcoma cell line) whole cell lysate

Lane 3 : C2C12 (mouse myoblast cell line) whole cell lysate

Lane 4: RAW264.7 (mouse macrophage cell line transformed with

Abelson murine leukemia virus) whole cell lysate

Lysates/proteins at 10 µg per lane.

## **Secondary**

 $\label{eq:All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution (Goat Anti-Rabbit IgG H&L (HRP))} \\$ 

Developed using the ECL technique.

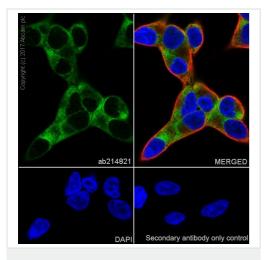
Predicted band size: 44 kDa

Observed band size: 14,18,30 kDa

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure times: Lane 1: 3 minutes; Lanes 2-4: 15 seconds.

The molecular weight observed is consistent with literature. Bands observed at 14KD are monomers (PMID: 12819188, PMID: 3200834). Bands observed at 18KD are glycosylated monomers (PMID: 12819188, PMID: 8117284, PMID: 16261447, PMID: 3200834). Bands observed at ~30KD are dimers or glycosylated dimers) (PMID: 22508088, PMID: 16261447, PMID: 3200834).

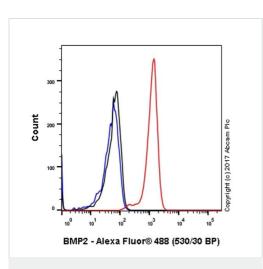


Immunocytochemistry/ Immunofluorescence - Anti-BMP2 antibody [EPR20807] (ab214821)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized LNCaP (human prostate cancer cell line) cells labeling BMP2 with ab214821 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor<sup>®</sup> 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on LNCaP cell line.

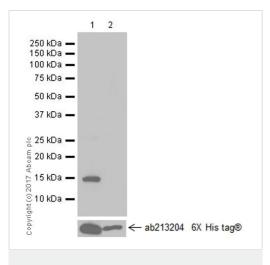
The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor<sup>®</sup> 594) (ab195889) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (Alexa Fluor<sup>®</sup> 488) (ab150077) secondary antibody at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-BMP2 antibody [EPR20807] (ab214821)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) cell line labeling BMP2 with ab214821 at 1/700 dilution (red) compared with an Isotype controlRabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black)and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077), at 1/2000 dilution was used as the secondary antibody.



Western blot - Anti-BMP2 antibody [EPR20807] (ab214821)

**All lanes :** Anti-BMP2 antibody [EPR20807] (ab214821) at 1/1000 dilution

**Lane 1 :** His-tagged human BMP2 (aa283-395) recombinant protein

Lane 2 : His-tagged human BMP4 (aa293-408) recombinant protein

Lysates/proteins at 0.02 µg per lane.

# **Secondary**

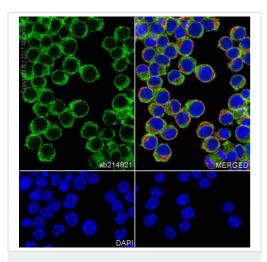
**All lanes :** Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/100000 dilution (Goat Anti-Rabbit lgG H&L (HRP))

Developed using the ECL technique.

**Predicted band size:** 44 kDa **Observed band size:** 15 kDa

Exposure time: 1 second

Blocking and dilution buffer: 5% NFDM/TBST

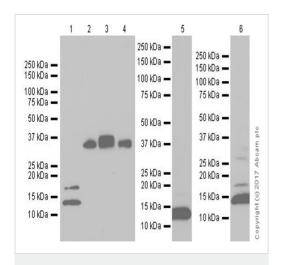


Immunocytochemistry/ Immunofluorescence - Anti-BMP2 antibody [EPR20807] (ab214821)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) cells labeling BMP2 with ab214821 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on RAW 264.7 cell line.

The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor<sup>®</sup> 594) (ab195889) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (Alexa Fluor<sup>®</sup> 488) (ab150077) secondary antibody at 1/1000 dilution.



Western blot - Anti-BMP2 antibody [EPR20807] (ab214821)

**All lanes :** Anti-BMP2 antibody [EPR20807] (ab214821) at 1/1000 dilution

**Lane 1 :** LNCaP (human prostate cancer cell line) whole cell lysate at 20  $\mu g$ 

Lane 2 : Mouse cartilage tissue lysate at 20 µg

Lane 3 : Human lung cancer tissue lysate at 20  $\mu g$ 

Lane 4: Human fetal kidney tissue lysate at 20 µg

Lane 5: Rat spleen tissue lysate at 10 µg

Lane 6: C6 (rat glial tumor cell line) whole cell lysate at 10 µg

#### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution (Goat Anti-Rabbit IgG H&L (HRP))

Developed using the ECL technique.

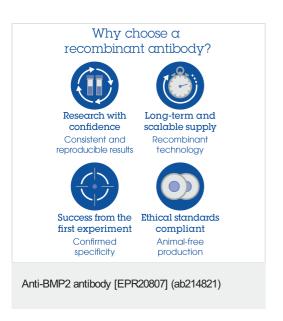
Predicted band size: 44 kDa

Observed band size: 14,18,30 kDa

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure times: Lanes 1-4: 3 minutes; Lane 5: 30 seconds; Lane 6: 5 seconds.

The molecular weight observed is consistent with literature. Bands observed at 14KD are monomers (PMID: 12819188, PMID: 3200834). Bands observed at 18KD are glycosylated monomers (PMID: 12819188, PMID: 8117284, PMID: 16261447, PMID: 3200834). Bands observed at ~30KD are dimers or glycosylated dimers) (PMID: 22508088, PMID: 16261447, PMID: 3200834).



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