abcam

Product datasheet

Anti-Neurofibromin antibody [EPR22989-68] ab238142

KO 評価済 リコンビナント RabMAb

画像数 5

製品の概要

製品名	Anti-Neurofibromin antibody [EPR22989-68]
製品の詳細	Rabbit monoclonal [EPR22989-68] to Neurofibromin
由来種	Rabbit
アプリケーション	**適用あり:** WB **適用なし:** Flow Cyt,ICC/IF,IHC-P or IP
種交差性	**交差種:** Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: HAP1, HeLa, Mouse brain, Rat brain, NIH/3T3, MEF and PC-12 whole cell lysates.
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 RabMAb® 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. Avoid freeze / thaw cycle.
バッファー	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR22989-68
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee Abpromise保証は、 次のテスト済みアプリケーションにおけるab238142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
WB		1/1000. Predicted molecular weight: 319 kDa.

追加情報 Is unsuitable for Flow Cyt,ICC/IF,IHC-P or IP.

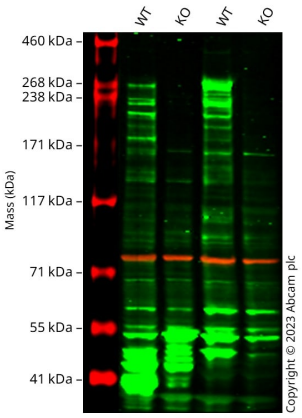
ターゲット情報

機能 Stimulates the GTPase activity of Ras. NF1 shows greater affinity for Ras GAP, but lower specific activity. May be a regulator of Ras activity.

関連疾患 Defects in NF1 are the cause of neurofibromatosis type 1 (NF1) [MIM:162200]; also known as von Recklinghausen syndrome. A disease characterized by patches of skin pigmentation (cafe-au-lait spots), Lisch nodules of the iris, tumors in the peripheral nervous system and fibromatous skin tumors. Individuals with the disorder have increased susceptibility to the development of benign and malignant tumors.
Defects in NF1 are a cause of juvenile myelomonocytic leukemia (JMML) [MIM:607785]. JMML is a pediatric myelodysplastic syndrome that constitutes approximately 30% of childhood cases of myelodysplastic syndrome (MDS) and 2% of leukemia. Germline mutations of NF1 account for the association of JMML with type 1 neurofibromatosis (NF1).
Defects in NF1 are the cause of Watson syndrome (WS) [MIM:193520]. WS is characterized by the presence of pulmonary stenosis, cafe-au-lait spots, and mental retardation. WS is considered as an atypical form of NF1.
Defects in NF1 are a cause of familial spinal neurofibromatosis (FSNF) [MIM:162210]. Familial spinal NF is considered to be an alternative form of neurofibromatosis, showing multiple spinal tumors.
Defects in NF1 are a cause of neurofibromatosis-Noonan syndrome (NFNS) [MIM:601321]. NFNS is characterized by manifestations of both NF1 and Noonan syndrome (NS). NS is a disorder characterized by dysmorphic facial features, short stature, hypertelorism, cardiac anomalies, deafness, motor delay, and a bleeding diathesis.
Defects in NF1 may be a cause of colorectal cancer (CRC) [MIM:114500].

配列類似性 Contains 1 CRAL-TRIO domain.
Contains 1 Ras-GAP domain.

画像



Western blot - Anti-Neurofibromin antibody [EPR22989-68] (ab238142)

All lanes : Anti-Neurofibromin antibody [EPR22989-68] (ab238142) at 1/1000 dilution

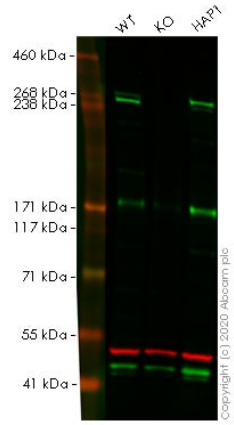
Lane 1 : Wild-type MCF7 cell lysate
Lane 2 : NF1 knockout MCF7 cell lysate
Lane 3 : Wild Type HeLa **ab255929** cell lysate
Lane 4 : NF1 knockout Hela **ab258533** cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 319 kDa
Observed band size: 180-270 kDa

Anti-NF1 antibody [EPR22989-68] (ab238142) staining at 1/1000 dilution, shown in green; Mouse anti-CANX [CANX/1543] (**ab238078**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab238142 was shown to bind specifically to NF1. A band was observed at 180-270 kDa in wild-type MCF7 cell lysates with no signal observed at this size in NF1 knockout cell line. To generate this image, wild-type and NF1 knockout MCF7 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



Western blot - Anti-Neurofibromin antibody [EPR22989-68] (ab238142)

All lanes : Anti-Neurofibromin antibody [EPR22989-68] (ab238142) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : NFIB knockout HeLa cell lysate
Lane 3 : HAP1 cell lysate

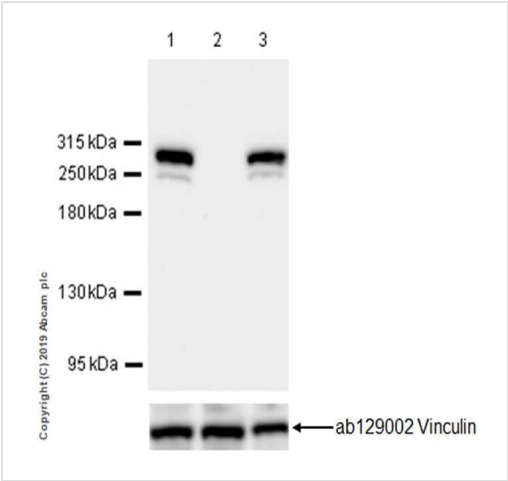
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 319 kDa

Lanes 1-3: Merged signal (red and green). Green - ab238142 observed at 319 kDa. Red - loading control **ab7291** observed at 50 kDa.

ab238142 Recombinant Anti-NF1 antibody [EPR22989-68] was shown to specifically react with NFIB in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab264725** (knockout cell lysate **ab258533**) was used. Wild-type and NF1 knockout samples were subjected to SDS-PAGE. ab238142 and Anti-alpha Tubulin antibody [DM1A] - Loading Control (**ab7291**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-Neurofibromin antibody [EPR22989-68] (ab238142)

All lanes : Anti-Neurofibromin antibody [EPR22989-68] (ab238142) at 1/1000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : Neurofibromin knockout HAP1 whole cell lysate
Lane 3 : HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

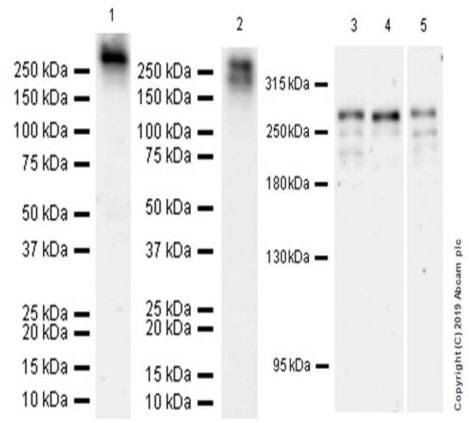
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/50000 dilution

Predicted band size: 319 kDa
Observed band size: 250,300 kDa

ab238142 was shown to specifically react with Neurofibromin in wild-type HAP1 cells as signal was lost in Neurofibromin knockout cells. Wild-type and Neurofibromin knockout samples were subjected to SDS-PAGE. ab238142 and **ab129002** (Rabbit anti-Vinculin loading control) were incubated 1 hour at room temperature at 1/1000 dilution and 1/5000 dilution respectively. Blots were developed with Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) secondary antibody at 1/100,000 dilution for 1 hour at room temperature before imaging. The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument using the ECL technique. Lysate should be made freshly and used in WB immediately to minimize protein degradation. Degraded fragment(250 KD) observed is consistent with what has been described in the literature (PMID: 30131853, PMID: 30408279).

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Exposure time: 26 seconds



Western blot - Anti-Neurofibromin antibody [EPR22989-68] (ab238142)

All lanes : Anti-Neurofibromin antibody [EPR22989-68] (ab238142) at 1/1000 dilution

Lane 1 : Mouse brain lysate

Lane 2 : Rat brain lysate

Lane 3 : NIH/3T3 (mouse embryonic fibroblast) whole cell lysate

Lane 4 : MEF (mouse embryonic fibroblast (immortalized)) whole cell lysate

Lane 5 : PC-12 (rat adrenal gland heochromocytoma) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

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

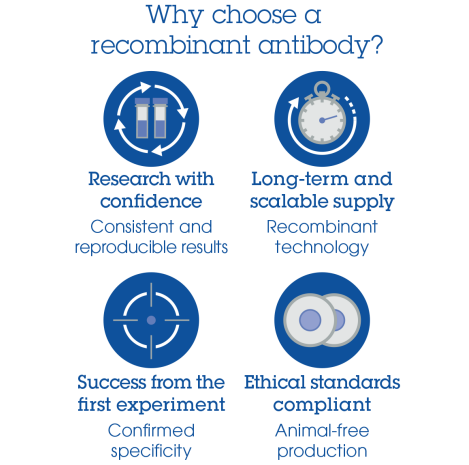
Predicted band size: 319 kDa

Observed band size: 200,250,300 kDa

Degraded fragments (200-250 KD) observed is consistent with what has been described in the literature (PMID: 30131853, PMID: 30408279).

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Exposure time: Lane 1:3 minutes; Lane 2:26 seconds; Lanes 3-5: 3 minutes.



Anti-Neurofibromin antibody [EPR22989-68] (ab238142)

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