abcam

Product datasheet

HRP Anti-Caveolin-1 antibody [E249] - Caveolae Marker ab193893

KO 評価済 リコンピナント RabMAb

画像数4

| 製品の概要 | |
|--------------|---|
| 製品名 | HRP Anti-Caveolin-1 antibody [E249] - Caveolae Marker |
| 製品の詳細 | HRP Rabbit monoclonal [E249] to Caveolin-1 - Caveolae Marker |
| 由来種 | Rabbit |
| 標識 | HRP |
| アプリケーション | 適用あり: IHC-P, WB |
| 種交差性 | 交差種: 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: HeLa, A549 and A431 whole cell lysate. IHC-P: FFPE human lung tissue sections. |
| 特記事項 | Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <u>RabMAb[®] patents</u> . |

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. Store In the Dark. |
| パッファー | pH: 7.40 Preservative: 0.1% Proclin 300 Solution Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS |
| 精製度 | Protein A purified |
| ポリ/モノ | モノクローナル |
| クローン名 | E249 |
| アイソタイプ | lgG |

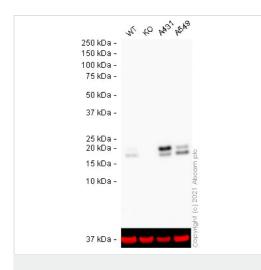
アプリケーション

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 |
|----------|-----------|---|
| IHC-P | | 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. |
| WB | | 1/5000. Detects a band of approximately 20 kDa (predicted molecular weight: 20 kDa). |

| ターゲット情報 | |
|---------|--|
| 機能 | May act as a scaffolding protein within caveolar membranes. Interacts directly with G-protein alpha subunits and can functionally regulate their activity (By similarity). Involved in the costimulatory signal essential for T-cell receptor (TCR)-mediated T-cell activation. Its binding to DPP4 induces T-cell proliferation and NF-kappa-B activation in a T-cell receptor/CD3-dependent manner. Recruits CTNNB1 to caveolar membranes and may regulate CTNNB1-mediated signaling through the Wnt pathway. |
| 組織特異性 | Expressed in muscle and lung, less so in liver, brain and kidney. |
| 関連疾患 | Defects in CAV1 are the cause of congenital generalized lipodystrophy type 3 (CGL3) [MIM:612526]; also called Berardinelli-Seip congenital lipodystrophy type 3 (BSCL3). Congenital generalized lipodystrophies are autosomal recessive disorders characterized by a near absence of adipose tissue, extreme insulin resistance, hypertriglyceridemia, hepatic steatosis and early onset of diabetes. |
| 配列類似性 | Belongs to the caveolin family. |
| 翻訳後修飾 | The initiator methionine for isoform Beta is removed during or just after translation. The new N- terminal amino acid is then N-acetylated. |
| 細胞内局在 | Golgi apparatus membrane. Cell membrane. Membrane > caveola. Membrane raft. Colocalized with DPP4 in membrane rafts. Potential hairpin-like structure in the membrane. Membrane protein of caveolae. |

画像



Western blot - HRP Anti-Caveolin-1 antibody [E249] - Caveolae Marker (ab193893) **All lanes :** HRP Anti-Caveolin-1 antibody [E249] - Caveolae Marker (ab193893) at 1/5000 dilution

Lane 1 : Wild-type HeLa cell lysate Lane 2 : CAV1 knockout HeLa cell lysate Lane 3 : A431 cell lysate Lane 4 : A549 cell lysate

Lysates/proteins at 20 µg per lane.

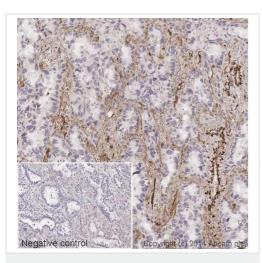
Performed under reducing conditions.

Predicted band size: 20 kDa Observed band size: 20 kDa

Exposure time: 90 seconds

Lanes 1 - 4: Merged signal (red and green). Green - ab193893 observed at 20 kDa. Red - loading control <u>ab8245</u> (Mouse anti-GAPDH antibody [6C5]) observed at 37 kDa.

ab193893 was shown to react with Caveolin-1 in wild-type HeLa cells in Western blot with loss of signal observed in CAV1 knockout cell line <u>ab255371</u> (CAV1 knockout cell lysate <u>ab263806</u>). Wild-type HeLa and CAV1 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween[®]) before incubation with ab193893 and <u>ab8245</u> (Mouse anti-GAPDH antibody [6C5]) overnight at 4 °C at a 1 in 5000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Mouse IgG H&L (IRDye[®] 680RD) preabsorbed (<u>ab216776</u>) secondary antibody at 1 in 20000 dilution for 1 h at room temperature. Blots were developed with Optiblot ECL reagent (<u>ab133456</u>) before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - HRP Anti-Caveolin-1 antibody [E249] - Caveolae Marker (ab193893)



Western blot - HRP Anti-Caveolin-1 antibody [E249] - Caveolae Marker (ab193893)

IHC image of Caveolin-1 staining in a section of formalin-fixed paraffin-embedded human normal lung*. The section was pretreated using pressure cooker heat mediated antigen retrieval with sodium citrate buffer (pH6) for 30mins, and incubated overnight at +4°C with ab193893 at a working dilution of 1/500. DAB was used as the chromogen (**ab103723**), diluted 1/100 and incubated for 10min at room temperature. The section was counterstained with haematoxylin and mounted with DPX. The inset negative control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

HRP Anti-Caveolin-1 antibody [E249] - Caveolae Marker (ab193893) at 1/5000 dilution + A431 (Human epithelial carcinoma cell line) Whole Cell Lysate at 10 µg

Developed using the ECL technique.

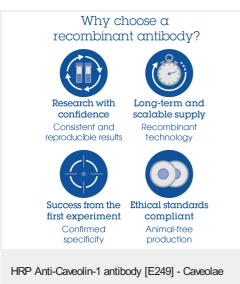
Performed under reducing conditions.

Predicted band size: 20 kDa Observed band size: 20 kDa Additional bands at: 17 kDa (possible isoform)

Exposure time: 10 seconds

This blot was produced using a 4-12% Bis-tris gel under the MES buffer system. The gel was run at 200V for 35 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes.

The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab193893 overnight at 4°C. Antibody binding was visualised using ECL development solution <u>ab133406</u>.



Marker (ab193893)

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- · We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <u>https://www.abcam.co.jp/abpromise</u> or contact our technical team.

Terms and conditions

• Guarantee only valid for products bought direct from Abcam or one of our authorized distributors