abcam

Product datasheet

Anti-Sortilin/NT3 antibody [EPR15010] ab188586



יילטענע RabMAb

★★★★ 1 Abreviews 3 References 画像数6

製品の概要

製品名 Anti-Sortilin/NT3 antibody [EPR15010]

製品の詳細 Rabbit monoclonal [EPR15010] to Sortilin/NT3

由来種 Rabbit

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

ポジティブ・コントロール WB: SW480 whole cell lysate (ab3957), SW40, HeLa and SH-SY5Y cell lysates. IHC-P: Human

brain tissues.

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 long

term. Avoid freeze / thaw cycle.

バッファー pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 59% 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 EPR15010

アイソタイプ lgG

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ab188586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
IHC-P		1/250. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000 - 1/2000. Detects a band of approximately 92-114 kDa (predicted molecular weight: 92 kDa).

ターゲット情報

機能

Functions as a sorting receptor in the Golgi compartment and as a clearance receptor on the cell surface. Required for protein transport from the Golgi apparatus to the lysosomes by a pathway that is independent of the mannose-6-phosphate receptor (M6PR). Also required for protein transport from the Golgi apparatus to the endosomes. Promotes neuronal apoptosis by mediating endocytosis of the proapoptotic precursor forms of BDNF (proBDNF) and NGFB (proNGFB). Also acts as a receptor for neurotensin. May promote mineralization of the extracellular matrix during osteogenic differentiation by scavenging extracellular LPL. Probably required in adipocytes for the formation of specialized storage vesicles containing the glucose transporter SLC2A4/GLUT4 (GLUT4 storage vesicles, or GSVs). These vesicles provide a stable pool of SLC2A4 and confer increased responsiveness to insulin. May also mediate transport from the endoplasmic reticulum to the Golgi.

組織特異性

Expressed at high levels in brain, spinal cord, heart, skeletal muscle, thyroid, placenta and testis. Expressed at lower levels in lymphoid organs, kidney, colon and liver.

関連疾患

Note=A common polymorphism located in a non-coding region between CELSR2 and PSRC1 alters a CEBP transcription factor binding site and is responsible for changes in hepatic expression of SORT1. Altered SORT1 expression in liver affects low density lipoprotein cholesterol levels in plasma and is associated with susceptibility to myocardial infarction.

配列類似性

Belongs to the VPS10-related sortilin family. SORT1 subfamily.

Contains 9 BNR repeats.

ドメイン

The N-terminal propeptide may facilitate precursor transport within the Golgi stack. Intrachain binding of the N-terminal propeptide and the extracellular domain may also inhibit premature ligand binding.

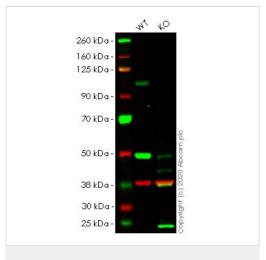
The extracellular domain may be shed following protease cleavage in some cell types.

翻訳後修飾

The N-terminal propeptide is cleaved by furin and possibly other homologous proteases.

細胞内局在

Membrane. Endoplasmic reticulum membrane. Endosome membrane. Golgi apparatus > Golgi stack membrane. Lysosome membrane. Nucleus membrane. Cell membrane. Lysosome membrane. Localized to membranes of the endoplasmic reticulum, endosomes, Golgi stack, lysosomes and nucleus. A small fraction of the protein is also localized to the plasma membrane. May also be found in SLC2A4/GLUT4 storage vesicles (GSVs) in adipocytes. Localization to the plasma membrane in adipocytes may be enhanced by insulin.



Western blot - Anti-Sortilin/NT3 antibody [EPR15010] (ab188586)

All lanes : Anti-Sortilin/NT3 antibody [EPR15010] (ab188586) at 1/1000 dilution

Lane 1: Wild-type HeLa cell lysate

Lane 2: SORT1 knockout HeLa cell lysate

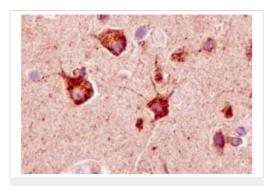
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 92 kDa **Observed band size:** 100 kDa

Lanes 1-2: Merged signal (red and green). Green - ab188586 observed at 100 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (ab8245) observed at 37 kDa.

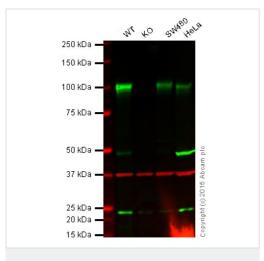
ab188586 was shown to react with Sortilin/NT3 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line ab264772 (knockout cell lysate ab257696) was used. Wild-type HeLa and SORT1 knockout HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab188586 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) were incubated overnight at 4°C at a 1 in 1000 dilution and a 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.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Sortilin/NT3 antibody
[EPR15010] (ab188586)

Immunohistochemical analysis of paraffin-embedded Human brain tissue labeling Sortilin/NT3 with ab188586 at 1/250 dilution followed by prediluted HRP Polymer for Rabbit lgG. Counter stained with Hematoxylin.

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



Western blot - Anti-Sortilin/NT3 antibody [EPR15010] (ab188586)

Lane 1: Wild-type HAP1 cell lysate (20 µg)

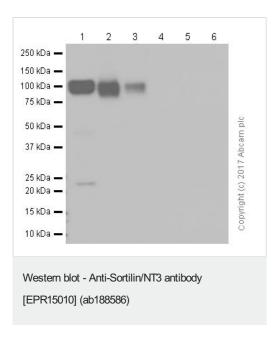
Lane 2: Sortilin/NT3 knockout HAP1 cell lysate (20 µg)

Lane 3: SW480 cell lysate (20 µg)

Lane 4: HeLa cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab188586 observed at 92 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab188586 was shown to react with Sortilin/NT3 in wild-type HAP1 cells along with additional cross-reactive bands. No band was observed when Sortilin/NT3 knockout samples were examined. Wild-type and Sortilin/NT3 knockout samples were subjected to SDS-PAGE. ab188586 and <u>ab8245</u> (loading control to GAPDH) were both diluted 1/2000 and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (<u>ab216773</u>) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (<u>ab216776</u>) secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



All lanes : Anti-Sortilin/NT3 antibody [EPR15010] (ab188586) at 1/1000 dilution

Lane 1: SH-SY5Y whole cell lysate

Lane 2: Human hippocampus tissue lysate

Lane 3: Human fetal brain tissue lysate

Lane 4: Mouse brain tissue lysate

Lane 5: 3T3-L1 whole cell lysate

Lane 6: Rat brain tissue lysate

Lysates/proteins at 15 µg per lane.

Secondary

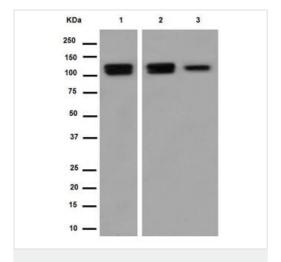
All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000

dilution

Predicted band size: 92 kDa **Observed band size:** 92 kDa

Exposure time: 30 seconds

Blocking and dilution buffer: 5% NFDM/TBST.



Western blot - Anti-Sortilin/NT3 antibody [EPR15010] (ab188586) **All lanes :** Anti-Sortilin/NT3 antibody [EPR15010] (ab188586) at 1/2000 dilution

Lane 1: SW480 cell lysate

Lane 2: HeLa cell lysate

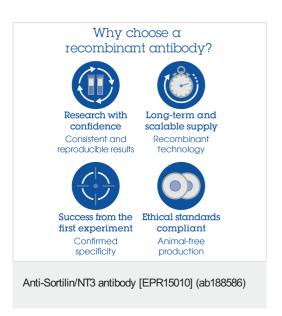
Lane 3: SH-SY5Y cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit lgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Predicted band size: 92 kDa



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 https://www.abcam.co.jp/abpromise or contact our technical team.

Terms and conditions

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