abcam

Product datasheet

Anti-Sortilin/NT3 antibody ab16640

敲除验证

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概述

产品名称	Anti-Sortilin/NT3抗体
描述	兔多克隆抗体to Sortilin/NT3
宿主	Rabbit
经测试应用	**适用于:** IHC-FoFr, WB
种属反应性	**与反应:** Mouse, Rat, Human **预测可用于:** Cow
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: HeLa cell lysate; NIH/3T3 cell lysate; 293T cell lysate; Human, Mouse, and Rat Brain tissue lysates. IHC-FoFr: Rat cortical neurons.
常规说明	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
存储溶液	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
纯度	Immunogen affinity purified

克隆	**多克隆**
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab16640于以下的经测试应用**

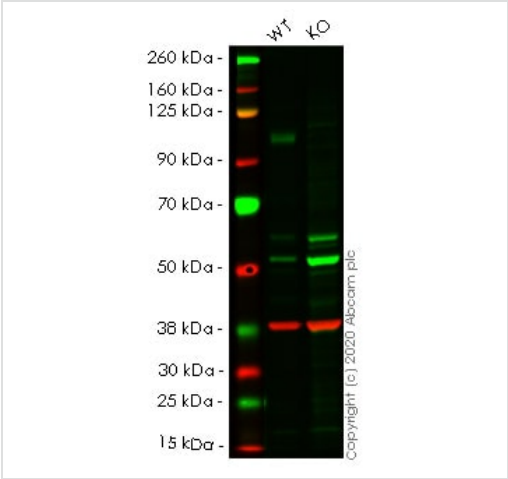
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IHC-FoFr	★★★★★ (2)	1/3000.
WB	★★★★☆ (5)	Use a concentration of 1 µg/ml. Detects a band of approximately 100 kDa (predicted molecular weight: 95 kDa).

靶标

功能	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.
组织特异性	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.
疾病相关	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.
序列相似性	Belongs to the VPS10-related sortilin family. SORT1 subfamily. Contains 9 BNR repeats.
结构域	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.
翻译后修饰	The N-terminal propeptide is cleaved by furin and possibly other homologous proteases.
细胞定位	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.

图片



Western blot - Anti-Sortilin/NT3 antibody (ab16640)

All lanes : Anti-Sortilin/NT3 antibody (ab16640) at 1 µg/ml

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : SORT1 knockout HeLa cell lysate

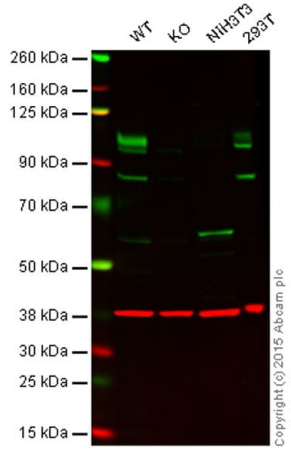
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 95 kDa
Observed band size: 100 kDa

Lanes 1- 2: Merged signal (red and green). Green - ab16640 observed at 100 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) observed at 37 kDa.

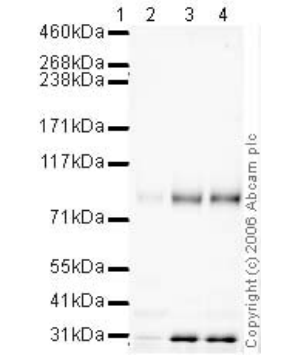
ab16640 was shown to react with Sortilin/NT3 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line **ab264772** (knockout cell lysate **ab257696**) was used. Wild-type HeLa and SORT1 knockout HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab16640 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at a 1 µg/ml 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.



Western blot - Anti-Sortilin/NT3 antibody (ab16640)

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: Sortilin/NT3 knockout HAP1 cell lysate (20 µg)
Lane 3: NIH/3T3 cell lysate (20 µg)
Lane 4: 293T cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - **ab16440** observed at 100 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab16640 was shown to specifically react with Sortilin/NT3 in wild-type HAP1 cells. No band was observed when Sortilin/NT3 knockout samples were examined. Wild-type and Sortilin/NT3 knockout samples were subjected to SDS-PAGE. ab16640 and **ab8245** (loading control to GAPDH) were diluted 1 µg/mL and 1/10,000 respectively and incubated overnight at 4°C. 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 1/10,000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-Sortilin/NT3 antibody (ab16640)

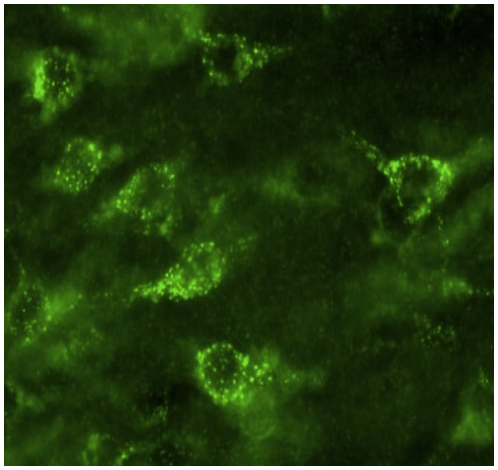
Lane 1 : Marker
Lanes 2-4 : Anti-Sortilin/NT3 antibody (ab16640) at 1 µg/ml

Lane 2 : Human Brain tissue lysate at 20 µg
Lane 3 : Mouse Brain tissue lysate at 20 µg
Lane 4 : Rat Brain whole cell lysate at 20 µg

Secondary
Lanes 2-4 : Goat polyclonal to Rabbit IgG H&L (HRP) Pre-Adsorbed at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 95 kDa
Additional bands at: 31 kDa (possible cleavage fragment)



Immunohistochemistry (PFA perfusion fixed frozen sections) - Anti-Sortilin/NT3 antibody (ab16640)

This image is courtesy of Sophie Pezet, Univ London Kings Coll, United Kingdom

Immunofluorescent staining for Sortilin/NT3 in rat cortical neurons using ab16640. The staining is cytoplasmic and punctate of many cells such as cortical neurons. The image was taken with a X20 objective.

Protocol details: Rats were intracardially perfused with 4% paraformaldehyde. Whole brain tissue was post-fixed overnight in the same fixative, cryoprotected in 20% sucrose and frozen in OCT and then cut on cryostat (30µm coronal sections). IHC was perfored in free floating with fixed tissues (rat brain sections). Primary antibody was incubated overnight at 1/3000 at room temperature

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