# abcam

## Product datasheet

## Anti-Sortilin/NT3 antibody ab36959

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#### Overview

Product name Anti-Sortilin/NT3 antibody

**Description** Rabbit polyclonal to Sortilin/NT3

Host species Rabbit

**Tested applications** Suitable for: ELISA, IHC-Fr, Dot blot, Flow Cyt

Unsuitable for: WB

Species reactivity Reacts with: Mouse, Rat, Human

Immunogen Recombinant fragment corresponding to Human Sortilin/NT3 (extracellular).

General notes

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

#### **Properties**

Form Liquid

**Storage instructions** Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer pH: 7

**Purity** Whole antiserum

**Clonality** Polyclonal

**Isotype** IgG

## **Applications**

The Abpromise guarantee Our Abpromise guarantee covers the use of ab36959 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration.
Dot blot		Use at an assay dependent concentration.
Flow Cyt	<b>★★★★</b> (1)	Use at an assay dependent concentration. <u>ab171870</u> - Rabbit polyclonal lgG, is suitable for use as an isotype control with this antibody.

**Application notes** 

Is unsuitable for WB.

Contains 9 BNR repeats.

## **Target**

#### **Function**

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.

## Tissue specificity

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.

#### Involvement in disease

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.

## Sequence similarities

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

## Domain

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.

Post-translational modifications

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

## Cellular localization

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

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.

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