

## Product datasheet

# Recombinant Rat Sortilin/NT3 protein (His tag) ab226427

1 Image

### Description

<b>Product name</b>	Recombinant Rat Sortilin/NT3 protein (His tag)		
<b>Purity</b>	> 90 % SDS-PAGE.		
<b>Expression system</b>	Escherichia coli		
<b>Accession</b>	<u><b>O54861</b></u>		
<b>Protein length</b>	Protein fragment		
<b>Animal free</b>	No		
<b>Nature</b>	Recombinant		
<b>Species</b>	Rat		
<b>Sequence</b>	CEENDYTTWLAHSTDPGDYKDGCI LGYKEQFLRLRKSSV CQNGRDYVVAK QPSICPCSLEDFLCDFGYFRPENASECVEQPELKGHELE FCLYGKEEHLT TNGYRKIPGDRCQGGMNPAREVKDLKKKCTSNFLNPKKQ NSKSSS		
<b>Predicted molecular weight</b>	33 kDa including tags		
<b>Amino acids</b>	610 to 754		
<b>Tags</b>	His tag N-Terminus		
<b>Additional sequence information</b>	N-terminal 6xHis-SUMO-tagged.		

### Specifications

Our **Abpromise guarantee** covers the use of **ab226427** in the following tested applications.

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

**Applications** SDS-PAGE

**Form** Liquid

### Preparation and Storage

**Stability and Storage**

Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 7.2

Constituents: Tris buffer, 50% Glycerol (glycerin, glycerine)

**General Info**

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**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.  
Contains 9 BNR repeats.

**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.

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

**Post-translational modifications**

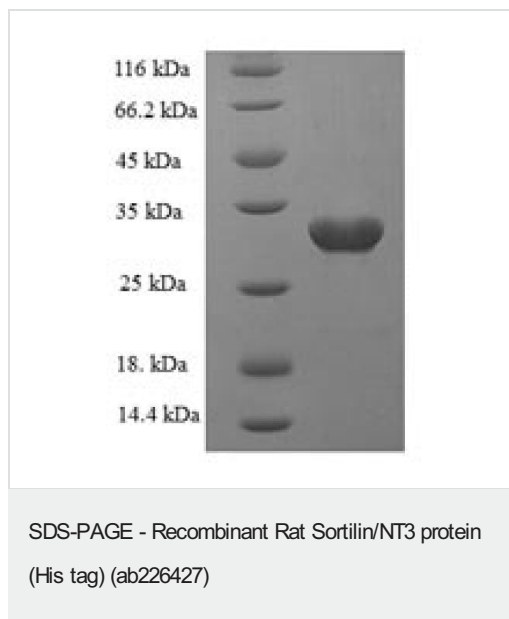
The N-terminal propeptide is cleaved by furin and possibly other homologous proteases.

**Cellular localization**

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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**Images**



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) analysis of ab226427 with 5% enrichment gel and 15% separation gel.

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

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