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Datasheet for ABIN3095533

## Sortilin 1 Protein (SORT1) (AA 78-755) (His tag)

### Overview

Quantity:	1 mg
Target:	Sortilin 1 (SORT1)
Protein Characteristics:	AA 78-755
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Sortilin 1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

### Product Details

Sequence: SAPGEDEECG RVRDFVAKLA NNTHQHVFDL LRGSVLSLWV GDSTGVILVL TTFHVPLVIM  
TFGQSKLYRS EDYGKNFKDI TDLINNTFIR TEFGMAIGPE NSGKVVLTAE VSGGSRGGRI  
FRSSDFAKNF VQTDLPFHPL TQMMYSPQNS DYLLALSTEN GLWVSKNFGG KWEEIHKAVC  
LAKWGSNTI FFTTYANGSC KADLGALELW RTSDLGKSFK TIGVKIYSFG LGGRFLFASV  
MADKDTTRRI HVSTDQGDW SMAQLPSVGQ EQFYSILAAN DDMVFMHVDE PGDTGFGTIF  
TSDDRGIVYS KSLDRHLYTT TGGETDFTNV TSLRGVYITS VLSEDNSIQT MITFDQGGRW  
THLRKPENSE CDATEKNKNE CSLHIHASYS ISQKLVNPM PLSEPNAVGI VIAHGKSVGDA  
ISVMVPDVYI SDDGGYSWTK MLEGPYHYTI LDSGGIIVAI EHSSRPINVI KFSTDEGQCW  
QTYTFTRDPI YFTGLASEPG ARSMNISIWG FTESFLTSQW VSYTIDFKDI LERNCEEKDY  
TIWLAHSTDP EDYEDGCILG YKEQFLRLRK SSVQCNGRDY VVKQPSICL CSLEDFLCDF  
GYYRPENDSK CVEQPELKGH DLEFCLYGRE EHLTTNGYRK IPGDKCQGGV NPVREVKDLK  
KKCTSNFLSP EKQNSKSN

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

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Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human SORT1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

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Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
  2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
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Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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Sterility:

0.22 µm filtered

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Endotoxin Level:

Protein is endotoxin free.

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Grade:

Crystallography grade

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## Target Details

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Target: Sortilin 1 (SORT1)

Alternative Name: SORT1 ([SORT1 Products](#))

Background: 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. {ECO:0000269|PubMed:10085125, ECO:0000269|PubMed:11331584, ECO:0000269|PubMed:11390366, ECO:0000269|PubMed:12209882, ECO:0000269|PubMed:12598608, ECO:0000269|PubMed:14657016, ECO:0000269|PubMed:14985763, ECO:0000269|PubMed:15313463, ECO:0000269|PubMed:15930396, ECO:0000269|PubMed:15987945}.

Molecular Weight: 76.7 kDa Including tag.

UniProt: [Q99523](#)

Pathways: [Neurotrophin Signaling Pathway](#)

## Application Details

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Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment: In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

## Handling

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Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)