

### Synonym

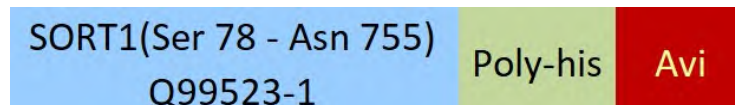
Sortilin,SORT1,100 kDa NT receptor,Glycoprotein  
95,Gp95,Gp95LDLCQ6,Neurotensin receptor 3,NT3NTR3,Ntr3,sortilin 1,

### Source

Biotinylated Human Sortilin Protein, His,Avitag(SON-H82E9) is expressed from human 293 cells (HEK293). It contains AA Ser 78 - Asn 755 (Accession # [Q99523-1](#) ).

Predicted N-terminus: Ser 78

### Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 79.3 kDa. The protein migrates as 90-100 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Labeling

*Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.*

### Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

### Endotoxin

Less than 1.0 EU per µg by the LAL method.

### Purity

>95% as determined by SDS-PAGE.

### Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

### Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

### Storage

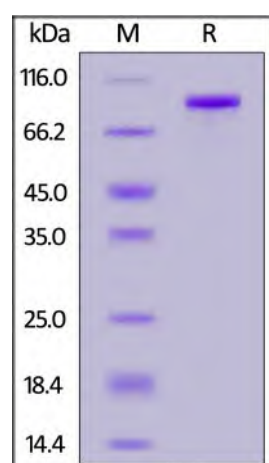
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

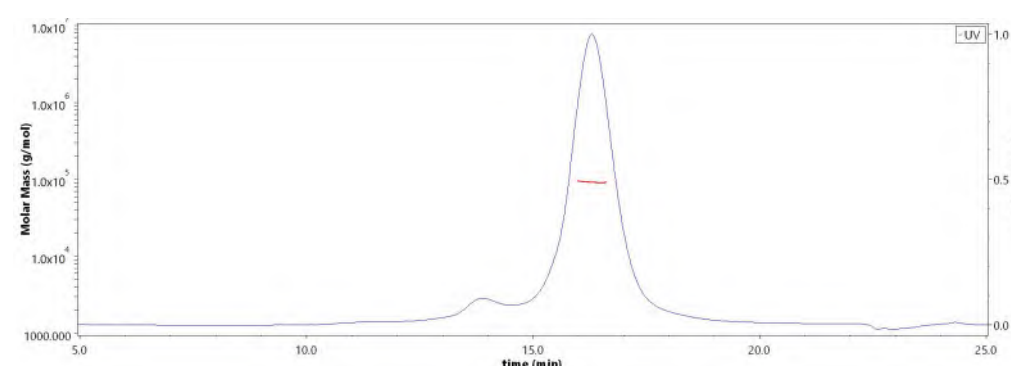
### SDS-PAGE



Biotinylated Human Sortilin Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

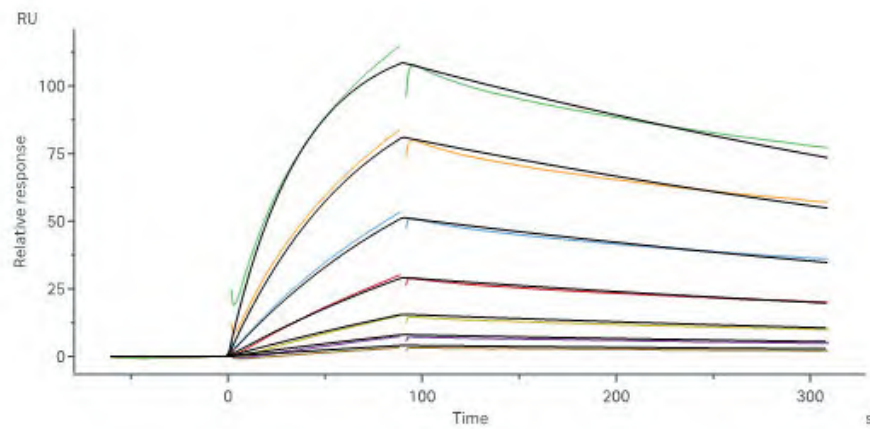
### Bioactivity-SPR

### SEC-MALS



The purity of Biotinylated Human Sortilin Protein, His,Avitag (Cat. No. SON-H82E9) is more than 85% and the molecular weight of this protein is around 80-107 kDa verified by SEC-MALS.

[Report](#)



Biotinylated Human Sortilin Protein, His,Avitag (Cat. No. SON-H82E9) captured on Biotin CAP-Series S Sensor Chip can bind Human Progranulin Protein, His Tag (Cat. No. PGN-H52H3) with an affinity constant of 0.355  $\mu\text{M}$  as determined in a SPR assay (Biacore 8K) (QC tested).

### Background

The Sortilin is 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). Lysosomal proteins bind specifically to the receptor in the Golgi apparatus and the resulting receptor-ligand complex is transported to an acidic prelysosomal compartment where the low pH mediates the dissociation of the complex. The receptor is then recycled back to the Golgi for another round of trafficking through its binding to the retromer. 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.

### Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.