

KEY RESOURCES TABLE

REAGENT or RESOURCE	SOURCE	IDENTIFIER
Antibodies		
Rabbit anti-WASH1 (C-terminal)	Sigma Aldrich	Catalog #SAB42200373
Rabbit anti-Strumpellin	Santa Cruz	Catalog #SC-87442
Rabbit anti-EEA1	Cell Signaling Technology	Clone #C45B10
Rat anti-Cathepsin D	Novus Biologicals	Clone #204712
Rabbit anti-Cleaved Caspase-3	Cell Signaling Technology	Antibody #9661
Guinea Pig anti-MAP2	Synaptic Systems	Catalog #188004
Mouse anti-Calbindin	Sigma Aldrich	Clone #CB-955
Mouse anti-Beta Tubulin III	Sigma Aldrich	Clone #SDL.3D10
Mouse anti-HA	BioLegend	Clone #16B12
Rat anti-HA	Sigma Aldrich	Clone #3F10
Critical Commercial Assays		
TMTpro™ 16plex Label Reagent	Thermo Fisher	N/A
NeutrAvidin® Agarose Resins	Thermo Fisher	N/A
S-Trap™ Binding Buffer	Profi	N/A
Deposited Data		
WASH1 iBioID Data	GitHub	N/A
SWIP ^{P1019R} TMT Data	GitHub	N/A
Experimental Models: Cell Lines		
HEK293T cells	Duke Cell Culture Facility	ATCC #CRL-11268
Experimental Models: Organisms/Strains		
SWIP ^{P1019R} mice	Duke Transgenic Mouse Facility	ENSMUSG00000034560
B6SJLF1/J mice	Jackson Laboratories	Jax #100012
C57BL/ 6J mice	Jackson Laboratories	Jax #000664
Oligonucleotides		
CRISPR sgRNA and repair oligo used to generate SWIP ^{P1019R} mice	Eton Bioscience	Table S4
Primers for PCR and genetic sequencing of SWIP ^{P1019R} mice	Eton Bioscience	Table S4
pmCAG-SWIP-WT-HA mutagenesis primers	Eton Bioscience	Table S4
Recombinant DNA		
pmCAG-SWIP-WT-HA	SHS	Sequence
pmCAG-SWIP-MUT-HA	SHS	Sequence
phSyn1-WASH1-BioID2-HA	SHS	Sequence
phSyn1-solubleBioID2-HA	SHS	Sequence
pAd-DeltaF6	SHS	Sequence
pAAV2/9	SHS	Sequence
Software and Algorithms		
Courtland <i>et al.</i> , source code	GitHub	N/A
Leiden Algorithm	conda	Version 0.8.1

EdgeR	BioConductor	Version 3.1.1
NetRep	GitHub	Version 1.2.1
Cytoscape	https://cytoscape.org/	Version 3.7.2
ggplot2	tidyverse.org	Version 3.3.2
Imaris	Oxford Instruments	Version 9.2.0
Zen	Zeiss	Version 2.3
Fiji	https://fiji.sc/	Version 2.0.0-rc-69/1.52p
GraphPad Prism	GraphPad Software	Version 8.0
Proteome Discoverer	Thermo Fisher	Versions 2.2 and 2.4
Mascot Distiller and Mascot Server	Matrix Sciences	Version 2.5
TreadScan NeurodegenScanSuite	CleverSys Inc	N/A
EthoVision XT	Noldus Information Technology	Version 11.0
Rotarod apparatus for mouse	Med Associates	Catalog #ENV-575M
Fear conditioning chamber	Med Associates	Catalog #VFC-008-LP
FreezeScan software	CleverSys Inc	N/A
Startle reflex chamber and software	Med Associates	Catalog #MED-ASR-PRO1
Other		
Geladaki <i>et al.</i> 's, LOPIT-DC protocol	PubMed	N/A
Orbitrap Fusion™ Lumos™ Tribrid™ Mass Spectrometer	Duke Proteomics and Metabolomics Shared Resource	N/A
Thermo QExactive HF-X Mass Spectrometer	Duke Proteomics and Metabolomics Shared Resource	N/A
Zeiss 710 LSM confocal microscope	Duke Light Microscopy Core Facility (LCMF)	N/A
Reichert Ultracut E Microtome	Duke Department of Pathology	N/A
Phillips CM12 Electron Microscope	Duke Department of Pathology	N/A
Beckman XL-90 Centrifuge and Ti-70 rotor	Duke Department of Cell Biology	N/A
Beckman TLA-100 Ultracentrifuge and TLA-55 rotor	Duke Department of Cell Biology	N/A