

VU Research Portal

The Function of Neurobeachin in the Central Nervous System

Lauks, J.

2013

document version

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

citation for published version (APA)

Lauks, J. (2013). *The Function of Neurobeachin in the Central Nervous System*.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

E-mail address:

vuresearchportal.ub@vu.nl

List of Abbreviations

AA	amino acid
ABL	Abelson murine leukemia oncogene
AC	adenylyl cyclase
ADP	adenosine diphosphate
AKAP	A-kinase anchoring protein
Akt	protein kinase B
ALFY	autophagy-linked FYVE protein
ALP	alkaline phosphatase
API	amino peptidase I
AMPA	2-amino-3-(5-methyl-3-oxo-1,2-oxazol-4-yl)propanoic acid
AP	adaptor protein
ARF	ADP ribosylation factor
ARM	armadillo
Atg	autophagy gene
ATP	adenosine triphosphate
AZ	active zone
BAPTA	1,2-bis(o-aminophenoxy)ethane-N,N,N',N'-tetraacetic acid
BCA	bicinchoninic acid
BCL	B-cell lymphoma
BCHS	blue cheese
BEACH	beige and Chediak-Higashi
BFA	brefeldin A
BGL	beige-like protein
BL	basolateral
BMPR	bone morphogenetic protein receptor
BPH	beige protein homologue
BSA	bovine serum albumin
BWF	protein containing the BEACH, WD40 and FYVE domains
ctsb	cathepsin B
cyt	cytochrome
cAMP	3'5'-cyclic-adenosine-monophosphate
CaN	calcineurin
<i>C. elegans</i>	<i>Caenorhabditis elegans</i>
C-terminus	carboxyl-terminus

List of Abbreviations

CaMKII	Ca ²⁺ /calmodulin dependent protein kinase II
CDC4L	cell division cycle 4 like
cDNA	complementary deoxyribonucleic acid
CHS	Chediak-Higashi syndrome
CID	collision induced dissociation
CKAMP44	cystine-knot AMPAR modulating protein of 44 kDa
Cl1qbp	complement component 1Q subcomponent binding protein, mitochondrial
Clip	CAP-Gly domain-containing linker protein
CNBr	cyanogen bromide
CNS	central nervous system
ConA	Concavalin A
Cont	control
COP	coat protein complex
COS	CV-1 (simian) in Origin, and carrying the SV40 genetic material
CPS	carboxypeptidase S
CPY	carboxypeptidase Y
CTV	cytosol to vacuole
CXCL	CXC chemokine ligand
Da	Dalton
D-AKAP	dual-specificity AKAP
DAKAP	<i>Drosophila</i> AKAP
DD	death domain
DDM	n-Dodecyl β -D-maltoside
DIV	day <i>in vitro</i>
dld	dihydrolipoyl dehydrogenase, mitochondrial
dlg	discs large
DMEM	Dulbecco's modied Eagle medium
D-PBS	Dulbecco's phosphate buffered saline
DPP	dipeptidyl aminopeptidase-like protein
DPTA	1,3-Diamino-2-hydroxy-propane-N,N',N'-tetraacetic acid
DTNBP	dystobrevin-binding protein
DUF	domain of unknown function
Dync1i2	cytoplasmic dynein 1 intermediate chain 2
E	embryonic day
EB	empty beads
EBV	Epstein-Barr virus
ECF	enhanced chemifluorescence
ECL	enhanced chemiluminescence
EDTA	ethylenediaminetetraacetic acid
EE	early/sorting endosome
EEA	early endosome antigen
eef1a1	elongation factor 1-alpha 1
EGFP	enhanced green fluorescent protein
EGFR	epidermal growth factor receptor
EGTA	ethylene glycol tetraacetic acid
EHD	EPS15-homology-domain protein
EM	electron microscope
EML	echinoderm microtubule-associated protein like
EPS	epidermal growth factor receptor substrate
ER	endoplasmic reticulum
ERAD	ER-associated degradation
ERC	endocytic recycling compartment
ERES	endoplasmic reticulum exit sites
ERGIC	endoplasmic reticulum-Golgi intermediate compartment

ERK	extracellular signal-regulated kinase
EPSC	excitatory postsynaptic current
FAN	factor associated with neutral sphingomyelinase activation
FCS	fetal calf serum
FWHM	full width at half maximum
FYVE	Fabp1, YOTB, Vac1 and EEA1
GAB	GRB2-associated binding protein
GABA	γ -aminobutyric acid
GalNAc	<i>N</i> -acetylgalactosamine
GFP	green-fluorescent protein
GlyR β	glycine receptor beta subunit
GM130	130 kDa cis-Golgi matrix protein
GOF	gain of function
GPs	Gray platelet syndrome
GRB	growth factor receptor-bound protein
GTP	guanosine triphosphate
GUK	guanylate kinase
HBS	HEPES-buffered saline
HBSS	Hanks Buffered Salt Solution
HD	Huntington disease
HEK	human embryonic kidney
HEPES	4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid
HLA	human leukocyte antigen
HOPS	homeotypic vacuole fusion and protein sorting
HPLC	high-performance liquid chromatography
Hsp	heat shock protein
KD	knock-down
KDEL	Lysine-Aspartic acid-Glutamic acid-Leucine
KO	knock-out
IB	immunoblot
IL	interleukin
ILPK	isoleucine-leucine-proline-lysine
IP	immunoprecipitation
IPSC	inhibitory postsynaptic current
JNK	c-Jun N-terminal kinase
Kcnd	potassium voltage-gated channel subfamily D member
Lamp	lysosomal-associated membrane protein
LBA	lipopolysaccharide-responsive beige-like anchor gene
LC	liquid chromatography
LDCV	large dense core vesicles
LE	late endosome
let	lethal protein
lin	lineage defective
LPS	lipopolysaccharide
LRBA	lipopolysaccharide-responsive beige-like anchor gene
LTQ	linear trap quadrupole
Lvs	large volume sphere
LYST	lysosomal trafficking regulator
MAGUK	membrane-associated guanylate kinase
MAP2	microtubule-associated protein 2
MAPK	mitogen-activated protein kinase
MEF	mouse embryonic fibroblast
mini	miniature
MOC	Manders' overlap coefficient
MS	mass spectrometry

List of Abbreviations

MVB	multivesicular bodies
N-terminus	amino-terminus
Nbea	Neurobeachin
NBEAL	Nbea-like
NCBI	National Center for Biotechnology Information
NEAA	non-essential amino acids
NEK	never in mitosis A-related kinase
NF- κ B	nuclear factor κ -light-chain-enhancer of activated B cells
NLI	neuroligin 1
NMDAR	N-methyl-D-aspartate receptor
NMJ	neuro-muscular junction
NPY	neuropeptide Y
NSD	neutral sphingomyelinase activation domain
N-SMase	neutral sphingomyelinase
P	postnatal day
P2 + M	crude membrane with microsome fraction
PAGE	polyacrylamide gel electrophoresis
PCC	Pearson's correlation coefficient
PCR	polymerase chain reaction
PDE	phosphodiesterase
PDZ	post synaptic density protein, Drosophila disc large tumor suppressor, and zonula occludens-1 protein
Pen	penicillin
pfpk	6-phosphofructokinase type C
PH	pleckstrin-homology
PKA	protein kinase A
PKC	protein kinase C
PMSF	phenylmethylsulfonyl fluoride
PRKAR2A	protein kinase A regulatory subtype II α
PRKAR2B	protein kinase A regulatory subtype II β
PRKX	human chromosome-encoded protein kinase X
PSC	postsynaptic current
PtdIns(4,5)P	phosphatidylinositol-4,5-bisphosphate
PtIns(3)P	phosphatidylinositol-3-phosphate
PP2B	protein phosphatase 2B
PSD	postsynaptic density
PVC	prevacuolar compartment
PVDF	polyvinylidene difluoride
Qk	quaking
Rab	Ras-like in brain
Rac	Ras-related C3 botulinum toxin substrate
RACK	receptor for activated C-kinase
r _{cf}	relative centrifugal force
RE	recycling endosome
RER	rough endoplasmic reticulum
Rho	Ras homolog gene family
Rme	regulator of meiosis
ROP	repressor of primer
rpm	revolutions per minute
RT	room temperature
SAP	synapse associated protein
SDS	sodium dodecyl sulfate
Sed	suppressor of the Erd2 deletion
SEM	standard error of mean
SEL	suppressor/enhancer of lin

SER	smooth endoplasmic reticulum
SH	SRC Homology
SHC	SRC homology
siRNA	small interfering RNA
slc1a2	excitatory amino acid transporter 2
slc25a22	mitochondrial glutamate carrier 1
SM	sphngomyelin
SNAP	synaptosomal-associated protein
SNARE	soluble N-ethylmaleimide-sensitive fusion protein attachment protein receptor
SRP	slowly releasable pool
Sssca	Sjoergen syndrome/scleroderma autoantigen
STAT	signal transducer and activator pf transcription
Strep	streptomycin
STRN	striatin
SUMO	small ubiquitin-like modifier
SV	synaptic vesicle
Syn	synapsin
Syng1	synaptogyrin
SySy	Synaptic System
TARP	transmembrane AMPA receptor regulatory protein
TC	tumor cell
TfR	transferrin receptor
TGN	<i>trans</i> -Golgi network
TNFR	tumor necrosis factor receptor
TRADD	TNF-R55-associated protein with death domain
TRAF	TNF receptor associated factor
TTX	tetrodotoxin
tubba	tublin alpha
tubb	tubulin beta
TX-100	Triton X-100
UB	ubiquitinated
VAMP	vesicle-associated membrane protein
VCP	Valosine-containing protein
VGLUT	vesicular glutamate transporter
VIAAT	vesicular inhibitory amino acid transporter
VPC	vulval precursor cell
VPS	vacuolar protein sorting
Vti	Vacuolar protein sorting ten p tail interacting
VTC	vesicular tubular clusters
WD	tryptophan-aspartic acid
WDFY	WD repeat and FYVE domain containing
WT	wild-type

List of Abbreviations
