Neuroscience Resources

Kits & Assays

PI3-Kinase Activity ELISA: Pico	K-1000s
PTEN Activity ELISA	K-4700
Class III PI3K ELISA	K-3000
PIP3 Mass ELISA	K-2500s
Acid Sphingomyelinase Activity Assay	K-3200

Antibodies & Nanobodies

PI(4,5)P2	Z-P045
PI(3,4,5)P3	Z-P345
Lysobisphosphatidic Acid (LBPA)	Z-PLBPA
Vps34	Z-R015
Akt	Z-N001

Agonists & Inhibitors

ABC294640 (SPHK2)	B-0025
CaMKII	893-40
PKA	892-20
Gamma Secretase	649-27
LY294002 (PI3K)	B-0924
9-t-butyl doxycycline	B-0801
PI-103, PI3Kα inhibitor	B-0303
FTY720, S1PR agonist	B-0720
Akt Inhibitor	B-0101
AS605240, PI3Kγ Inhibitor 1	B-0301

Kinases & Enzymes

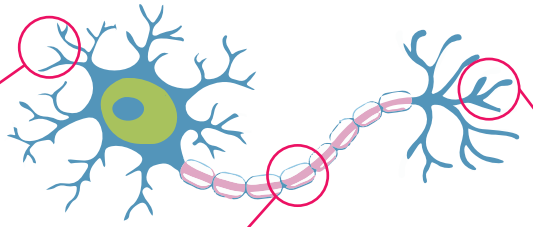
PI3-Kinase	E-2000
Sphingosine Kinase 1	E-K068
SHIP2	E-1000
PTEN	E-3000
PI4-Kinase II Alpha	P21-10G

Lipids

PI(4,5)P2	P-4508
PI(3,4,5)P3	P-3916
Phosphatidylethanol	L-6019
Phosphatidic Acid	L-4116
Lysophosphatidic Acid	L-7416

Peptides

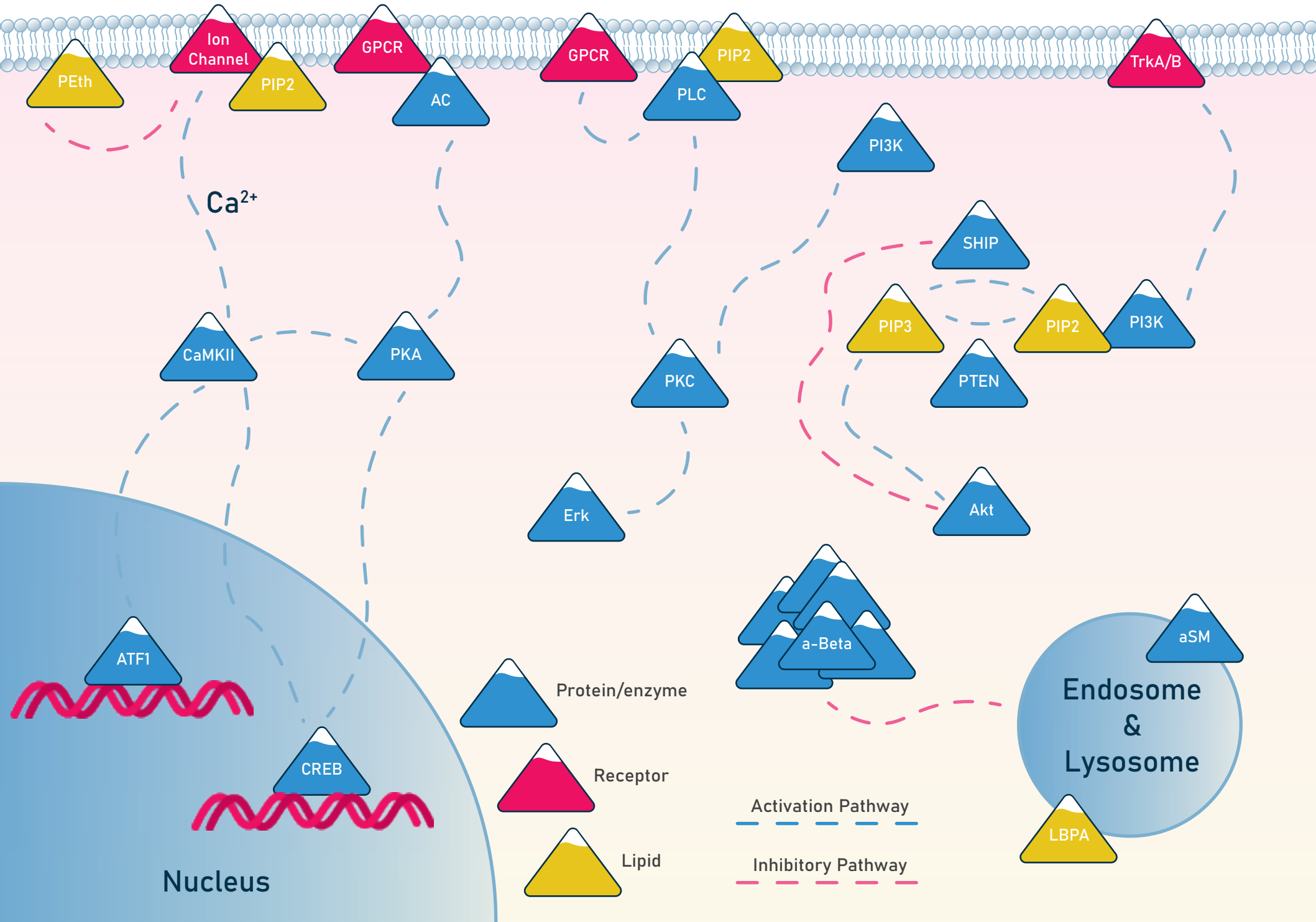
Beta amyloid, 1-42	641-15
PKC Substrate	890-82
Calmodulin Kinase Substrate	890-81
ACTH, 1-24	111-36
Akt Substrate	868-15



Dendrites receive and integrate signals from other neurons which are then propogated to the cell body through a series of complex signaling cascades. These cascades are also used to initiate and control gene expression in the neuron.

Axon terminals connect to other dendrites to form 'synapses'. Communication between neurons occurs here via the release of neurotransmitters that then bind to receptors on the receiving neuron.

The myelin sheath is a specialized structure that enhances the rate of action potentials through the axon. It is enriched in cholesterol and phospholipids.


PEth
Ion Channel
PIP2
GPCR
AC
GPCR
PIP2
PLC
TrkA/B
PI3K
Ca2+
SHIP
PIP3
PIP2
PI3K
PTEN
CaMKII
PKA
PKC
Erk
Akt
ATF1
CREB
Nucleus
Protein/enzyme
Receptor
Lipid
a-Beta
aSM
Endosome
&
Lysosome
LBPA
Activation Pathway
Inhibitory Pathway