

Neuronal Scaffold Proteins Antibody Sampler Kit

Cat# AK0198

Upon receipt, store at -20°C. Avoid freeze/thaw cycles.

PRODUCT DESCRIPTION

Scaffold proteins are composed of protein-interaction domains that tether multiple components of a signaling pathway to form signal transduction complexes. This organization of signaling molecules can help enhance signaling specificity and speed. Scaffold proteins are central components in neuronal synapses, where dynamic trafficking of synaptic proteins occurs. Mutations in scaffold proteins could have significant impact on synaptic structure and function. Postsynaptic density protein 95 (PSD95) is a member of the membrane-associated guanylate kinase (MAGUK) family of proteins and a scaffolding protein involved in the assembly and function of the postsynaptic density complex. SHANK proteins act as scaffolds at the neuronal post-synaptic density (PSD), where they play a critical role in PSD assembly of excitatory synapses during development. While recruitment of SHANK proteins to the synapse is independent of their interaction with Homer, proper synaptic targeting of SHANK1 is mediated by interactions between its PDZ domain and PSD proteins. Homer proteins are scaffolds, composed of an EVH protein – binding domain, a coiled-coil domain and a leucine zipper domain. The EVH domain is a protein-protein binding module that binds to the proline-rich motifs of G-protein – coupled receptors (GPCRs), inositol 1,4,5-triphosphate (IP3) receptors (IP3Rs), ryanodine receptors, and TRP channels. The coiled-coil and the leucine zipper domains cause multimerization of Homers and assemble signaling proteins complexes. Spinophilin is a protein phosphatase 1 regulatory protein that interacts with a large number of proteins, including ion channel components and G-protein-coupled receptors (GPCRs). Spinophilin also interacts with actin filaments; phosphorylation of spinophilin at Ser94 and Ser177 disrupts this interaction.

PRODUCT INCLUDES

Cat No.	Product name	Quantity	Applications	Reactivity	Host
A340110	HOMER1 Polyclonal Antibody	20µL	WB, IHC, ELISA	Human, Mouse, Rat	Rabbit
A340651	PSD-95 Polyclonal Antibody	20µL	WB, ELISA	Human, Mouse, Rat	Rabbit
A340667	Shank 2 Polyclonal Antibody	20µL	WB, ELISA	Human	Rabbit
A1013s	Goat Anti-Rabbit IgG (H+L) (peroxidase/HRP conjugated)	120µL	WB, ELISA	Rabbit	Goat

PRODUCT USE LIMITATION

These products are intended for research use only.