

Neurobeachin

Cat.No. 194 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: yes ICC: 1 : 1000 IHC: yes IHC-P/FFPE: not tested yet
Immunogen	Recombinant protein corresponding to AA 952 to 1320 from mouse Neurobeachin (UniProt Id: Q9EPN1)
Reactivity	Reacts with: rat, mouse (Q9EPN1). Other species not tested yet.
Specificity	Specific for neurobeachin.

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Neurobeachin, also referred to as **NBEA**, is a large ~330 kDa brain-specific protein that belongs to the BEACH (**b**eige and **C**hediak-Higashi) family. The protein has been shown to locate to tubulovesicular neuronal endomembranes near the trans-Golgi synapses, but also throughout the cell. Neurobeachin binds to protein kinase A and after adding GTPγS concentrates at Golgi-near membranes.

Selected References SYSY Antibodies

Synapse associated protein 102 (SAP102) binds the C-terminal part of the scaffolding protein neurobeachin. Lauks J, Klemmer P, Farzana F, Karupothula R, Zalm R, Cooke NE, Li KW, Smit AB, Toonen R, Verhage M PloS one (2012) 7(6): e39420. **WB, IP, ICC**

Dendritic spine formation and synaptic function require neurobeachin.

Niesmann K, Breuer D, Brockhaus J, Born G, Wolff I, Reissner C, Kilimann MW, Rohlmann A, Missler M Nature communications (2011) 2: 557. **WB, ICC, IHC**

Neurobeachin Regulates Glutamate- and GABA-Receptor Targeting to Synapses via Distinct Pathways.

Farzana F, Zalm R, Chen N, Li KW, Grant SG, Smit AB, Toonen RF, Verhage M Molecular neurobiology (2016) 53(4): 2112-23. **WB, ICC**

Neurobeachin regulates neurotransmitter receptor trafficking to synapses.

Nair R, Lauks J, Jung S, Cooke NE, de Wit H, Brose N, Kilimann MW, Verhage M, Rhee J The Journal of cell biology (2013) 200(1): 61-80. **WB, ICC**

Selected General References

Neurobeachin is essential for neuromuscular synaptic transmission.

Su Y, Balice-Gordon RJ, Hess DM, Landsman DS, Minarcik J, Golden J, Hurwitz I, Liebhaber SA, Cooke NE The Journal of neuroscience : the official journal of the Society for Neuroscience (2004) 24(14): 3627-36.

Neurobeachin: A protein kinase A-anchoring, beige/Chediak-higashi protein homolog implicated in neuronal membrane traffic.

Wang X, Herberg FW, Laue MM, Wullner C, Hu B, Petrasch-Parwez E, Kilimann MW The Journal of neuroscience : the official journal of the Society for Neuroscience (2000) 20(23): 8551-65.