

Basic Information

Product Name	Anti-SYN2 Antibody	
Gene Name	SYN2	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat, pig	
Tested Application	WB, IHC, ICC/IF	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E. coli-derived human Synapsin II recombinant protein (Position: A497-D582). Human Synapsin II shares 93.1% and 89.7% amino acid (aa) sequence identity with mouse and rat Synapsin II, respectively.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	55,80 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

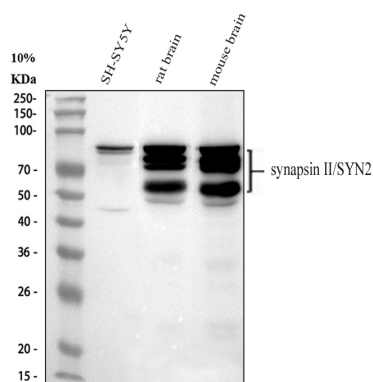
12 months from date of receipt, -20°C as supplied.

Background Information

Synapsin II is the collective name for synapsin IIa and synapsin IIb, two nearly identical phosphoproteins in the synapsin family that in humans are encoded by the SYN2 gene. Synapsins encode neuronal phosphoproteins which associate with the cytoplasmic surface of synaptic vesicles. Family members are characterized by common protein domains, and they are implicated in synaptogenesis and the modulation of neurotransmitter release, suggesting a potential role in several neuropsychiatric diseases. This member of the synapsin family encodes a neuron-specific phosphoprotein that selectively binds to small synaptic vesicles in the presynaptic nerve terminal. Polymorphisms in this gene are associated with abnormal presynaptic function and related neuronal disorders, including autism, epilepsy, bipolar disorder and schizophrenia. Alternative splicing of this gene results in multiple transcript variants. The tissue inhibitor of metalloproteinase 4 gene is located within an

intron of this gene and is transcribed in the opposite direction.

Selected Validation Data



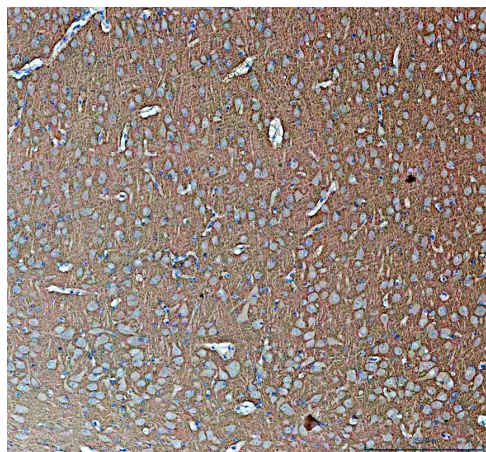
Western blot analysis of SYN2 using anti-SYN2 antibody (PB1153). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human SH-SY5Y whole cell lysates,

Lane 2: rat brain tissue lysates,

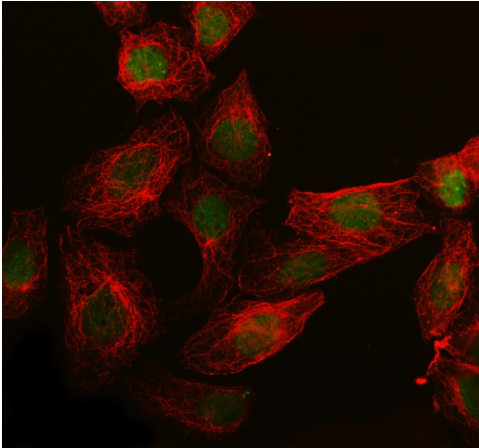
Lane 3: mouse brain tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-SYN2 antiA03957-Aen affinity purified polyclonal antibody (PB1153) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for SYN2 at approximately 55,80 kDa. The expected band size for SYN2 is at 63 kDa.



IHC analysis of SYN2 using anti-SYN2 antibody (PB1153).

SYN2 was detected in a paraffin-embedded section of pig brain tissue. The tissue section was incubated with rabbit anti-SYN2 Antibody (PB1153) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of SYN2 using anti-SYN2 antibody (PB1153) and anti-Alpha Tubulin antibody (M03989-3).

SYN2 was detected in an immunocytochemical section of U2OS cells. The section was incubated with rabbit anti-SYN2 Antibody (PB1153) at a dilution of 1:100. Dylight488-conjugated Anti-rabbit IgG Secondary Antibody (green) (Catalog # BA1127) and Cy3-conjugated Anti-mouse IgG Secondary Antibody (red) (Catalog # BA1031) were used as secondary antibody.