

## synaptophysin 2 Antibody

Catalog No: #21452

Package Size: #21452-1 50ul #21452-2 100ul

Orders: order@signalwayantibody.com

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## Description

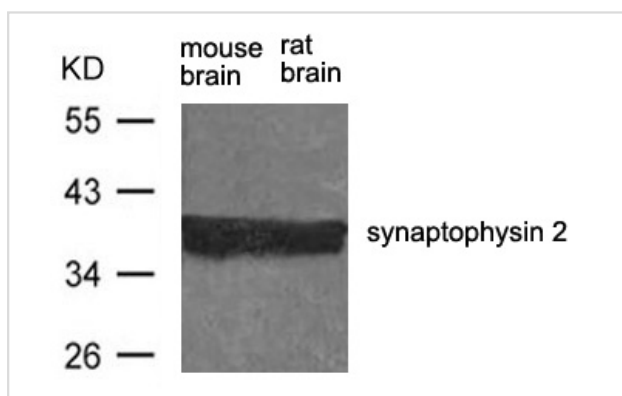
Product Name	synaptophysin 2 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.
Applications	WB
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous levels of total synaptophysin 2 protein.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around aa.257~261(G-P-T-S-F)derived from Rat synaptophysin 2.
Target Name	synaptophysin 2
Other Names	Synpr
Accession No.	Swiss-Prot: P22831NCBI Protein: NP_076464.1
Uniprot	P22831
GeneID	66030;
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

## Application Details

Predicted MW: 37kd

Western blotting: 1:500~1:1000

## Images



Western blot analysis of extract from rat brain and mouse brain using synaptophysin 2 Antibody #21452.

## Background

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Synaptophysin (SYP) is a neuronal synaptic vesicle glycoprotein that is expressed in neuroendocrine cells and neoplasms, and thus can be used as a marker in tumor diagnosis (1). Synaptophysin contains four transmembrane domains that form a hexameric channel or gap junction-like pore (2). Synaptophysin binds to the SNARE protein synaptobrevin/VAMP, which prevents the inclusion of synaptobrevin in the synaptic vesicle fusion complex and creates a pool of synaptobrevin for exocytosis when synapse activity increases (3). Synaptophysin is also responsible for targeting synaptobrevin 2/VAMP2 to synaptic vesicles, a critical component of the fusion complex (4).

Wiedenmann, B. et al. (1986) *Proc Natl Acad Sci USA* 83, 3500-4.

Valtorta, F. et al. (2004) *Bioessays* 26, 445-53.

Arthur, C.P. and Stowell, M.H. (2007) *Structure* 15, 707-14.

Bonanomi, D. et al. (2007) *Biochem J* 404, 525-34.

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Note: This product is for in vitro research use only