Product datasheet

anti-Synaptophysin mouse monoclonal, SY38, liquid, purified, sample

Short overview

Cat. No.	690012S
Quantity	200 µl
Concentration	50 µg/ml (10 µg)

Product description

Host	Mouse
Antibody Type	Monoclonal
Isotype	IgG1
Clone	SY38
Immunogen	Synaptophysin from presynaptic vesicles, prepared from bovine brain
Formulation	PBS pH 7.4 with 0.09% sodium azide and 0.5% BSA
UniprotID	P20488 (Bovine), P08247 (Human), F6VR28 (Mouse), P07825 (Rat)
Synomym	Synaptophysin, Major synaptic vesicle protein p38, SYP
Note	Centrifuge prior to opening
Conjugate	Unconjugated
Purification	Affinity chromatography
Storage	Short term at 2-8°C; long term storage in aliquots at -20°C; avoid freeze/thaw cycles
Intended use	Research use only
Application	ICC/IF, IHC, WB
Reactivity	Bovine, Human, Mouse, Rat

Applications

Immunocytochemistry (ICC)	Assay dependent
Immunohistochemistry (IHC) - frozen	1:50-1:200 (0.25-1 µg/ml)
Immunohistochemistry (IHC) - paraffin	1:50-1:200 (0.25-1 µg/ml, microwave treatment recommended, no protease treatment)
Western Blot (WB)	1:500-1:1,000 (0.05-0.1 µg/ml)

Background

SY38 represents an excellent marker for several neuroendocrine, neuronal and adrenal tumors. Neuronal and adrenal tumors such as pheochromocytomas, paragangliomas, neuroblastomas, ganglioneuroblastomas. Neuroendocrine tumors of epithelial origin: Pancreatic islet cell carcinoma, bronchial and gastrointestinal carcinoids, medullary carcinoma of thyroid. Polypeptide reacting: 38 kDa transmembrane glycoprotein of presynaptic vesicles.

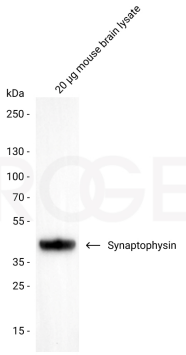
SY38 binds to a cytoplasmatic domain of synaptophysin. The epitope was located to a flexible segment in the center of the repeat structure

(Knaus and Betz, 1990).

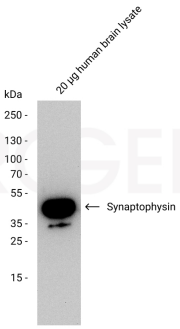
Tested cultured cell lines: rat PC-12 cell line.

Knaus, P. & Betz, H. Mapping of a dominant immunogenic region of synaptophysin, a major membrane protein of synaptic vesicles. FEBS Lett. 261, 358360 (1990).

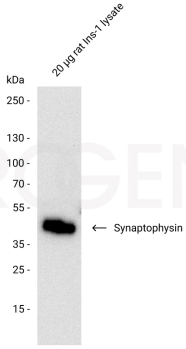
Product images



Western blot analysis of mouse brain lysate with anti-Synaptophysin antibody. Western blot analysis was performed on 20 µg mouse brain lysate. The PVDF membrane was blocked with 5% dry milk in PBST (PBS + 0.1% Tween 20) for 1 h at RT. The primary antibody anti-Synaptophysin mouse monoclonal, SY38 (Cat. No. 690012) was diluted in blocking buffer (antibody concentration 0.05 µg/ml) and incubated for 1 h at RT. The secondary antibody anti-mouse, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using PierceTM ECL Western Blotting Substrate.



Western blot analysis of human brain lysate with anti-Synaptophysin antibody. Western blot analysis was performed on 20 µg human brain lysate. The PVDF membrane was blocked with 5% dry milk in PBST (PBS + 0.1% Tween 20) for 1 h at RT. The primary antibody anti-Synaptophysin mouse monoclonal, SY38 (Cat. No. 690012) was diluted in blocking buffer (antibody concentration 0.05 µg/ml) and incubated for 1 h at RT. The secondary antibody anti-mouse, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using PierceTM ECL Western Blotting Substrate.



Western blot analysis of rat Ins-1 lysate with anti-Synaptophysin antibody. Western blot analysis was performed on 20 µg rat Ins-1 lysate. The PVDF membrane was blocked with 5% dry milk in PBST (PBS + 0.1% Tween 20) for 1 h at RT. The primary antibody anti-Synaptophysin mouse monoclonal, SY38 (Cat. No. 690012) was diluted in blocking buffer (antibody concentration 0.1 µg/ml) and incubated for 1 h at RT. The secondary antibody anti-mouse, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The

bands were visualized by chemiluminescent detection using PierceTM ECL Western Blotting Substrate.

References

Publication	Species	Application
Matsuda, T and Oinuma, . Imaging endogenous synaptic proteins in primary neurons at single-cell resolution using CRISPR/Cas9. Mol.Biol.Cell. 30, 2838-2855 (2019)	mouse	ICC-IF
Noble, E. et al. Control of Feeding Behavior by Cerebral Ventricular Volume Transmission of Melanin-Concentrating Hormone. Cell.Metab. 28, 55-68.e7 (2018)	rat	IHC-IF (paraffin)
Hsu, T. M. et al. Hippocampus ghrelin signaling mediates appetite through lateral hypothalamic orexin pathways. Elife 4, (2016).	rat	IHC (frozen)
Nakajima, C. et al. Low Density Lipoprotein Receptor-related Protein 1 (LRP1) Modulates N-Methyl-D-aspartate (NMDA) Receptor-dependent Intracellular Signaling and NMDA-induced Regulation of Postsynaptic Protein Complexes. J. Biol. Chem. 288, 21909-21923	mouse	WB,ICC-IF
Sato, J., Sasaki, S., Yamada, N. & Tsuchitani, M. Hereditary Cerebellar Degenerative Disease (Cerebellar Cortical Abiotrophy) in Rabbits. Vet. Pathol. 49, 621-628 (2012).	rabbit	IHC (paraffin)