Data Sheet (Cat.No.TMAB-01960)

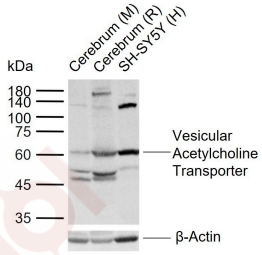
Anti-Vesicular Acetylcholine Transporter Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat (predicted:Rabbit)
Molecular Weight:	Theoretical: 57 kDa. Actual: 60 kDa.
Purification:	Protein A purified

Applications

Verified Activity:	Sample: Lane 1: Mouse Cerebrum tissue lysates Lane 2: Rat Cerebrum tissue lysates Lane 3: Human SH-SY5Y cell lysates Primary: Anti-Vesicular Acetylcholine Transporter (TMAB-01960) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 57 kDa Observed band size: 60 kDa



Application:	WB
Recommended	WB: 1:500-2000

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human VAT
Antigen Species:	Human
Gene ID:	6572
Uniprot ID:	Q16572
Synonyms:	Solute carrier family 18(vesicular monoamine) member 3;VACHT;Solute carrier family 18 (vesicular acetylcholine) member 3;MGC12716;rVAT;SLC18A3;Solute carrier family 18 member 3
Biology Area:	Molecular Neuropharmacology,Acetylcholine

Research Background

Vesicular Acetylcholine Transporter (VAChT), (~70kD protein), belongs to the family of vesicular monoamine transporters(VMATs), which include VMAT1 and VMAT2 and the C.elegans putative ACh transporter unc-17. Members of this family function to concentrate neurotransmitters into synaptic vesicles through exchange of protons for neurotransmitters. VAChT is a functional transporter for the neurotransmitter acetylcholine(ACh). ACh is synthesized in the cytoplasm by choline acetyl transferase (ChAT) and transported by VAChT into synaptic vesicles where it is stored until released. After release from presynaptic nerve terminals ACh is hydrolyzed by extracellular ACh-esterases(AChE) to choline and acetate.
VAChT mRNA is expressed in all known major cholinergic neurons in the central and peripheral nervous system. VAChT is abundantly expressed in the CNS and is mainly localized in small synaptic vesicles in cholinergic nerve terminals. VAChT provides a specific marker for cholinergic neurons for the study of cholinergic transmission in experimental models, in Alzheimer's disease and other nervous system disorders.

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