

Product datasheet for **TA328894**

Vamp2 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	GST fusion protein with sequence SATAATVPPAAPAGEGGPPAPPPNLT, corresponding to amino acid residues 2-27 of rat VAMP-2. Cytoplasmic, N-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 5% sucrose, 0.025% NaN ₃ .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	The serum was depleted of anti-GST antibodies by affinity chromatography on immobilized GST, and then IgG fraction was purified on Protein A-Sepharose.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	vesicle-associated membrane protein 2
Database Link:	NP_036795 Entrez Gene 22318 Mouse Entrez Gene 24803 Rat P63045

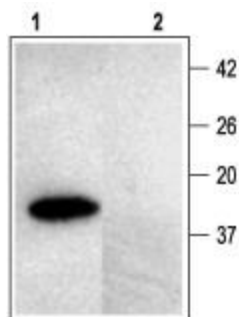
[View online »](#)

Background:

VAMP-2 (also known as synaptobrevin-2) is a member of the soluble N-ethylmaleimide-sensitive factor attachment protein receptor (SNARE) protein superfamily. The family includes 36 members in humans and is characterized by the SNARE motif, an evolutionarily conserved stretch of 60–70 amino acids that are arranged in heptad repeats. SNARE proteins are involved in exocytosis and intracellular vesicle trafficking and are essential for cell growth, hormone secretion and neurotransmission, processes that require rapid, targeted, and regulated membrane fusion. SNAREs can be roughly divided into vesicular (v-SNAREs) and target (t-SNAREs) based on their distribution on the transport vesicle or target membrane respectively. Thus, assembly of cognate v-/t-SNAREs between two opposing membranes generates trans-SNARE complexes, which bring the lipid bilayers in close proximity and drive membrane fusion. VAMP-2, like most SNAREs, is a type IV membrane protein with a relatively large N-terminus containing the SNARE motif located in the cytoplasmic side and a transmembrane domain located close to the C-terminus that functions as an anchor. VAMP-2 has been extensively studied for its role on neuronal and neuroendocrine cell exocytosis where it functions as the vesicle membrane protein v-SNARE, which together with the plasma membrane t-SNARE protein Syntaxin 1 and the membrane-associated SNAP-25 (synaptosome-associated protein 25 kDa), forms a trimeric, four-helical complex, which drives fusion of the two opposing bilayers. VAMP-2 is the target of the tetanus neurotoxin (TeNT) and of several botulinum neurotoxin (BoNT) types: type B, D, F, and G. The neurotoxins cause specific proteolytic degradation of the VAMP-2 protein, which in turn causes SNARE complex disruption and inhibition of neurotransmitter release.

Synonyms:

FLJ11460; SYB2; Synaptobrevin-2; VAMP-2

Product images:


Western blot analysis of rat brain membranes: 1. Anti-VAMP-2 antibody, (1:1000). 2. Anti-VAMP-2 antibody, preincubated with the control fusion protein antigen.