abcam

## Product datasheet

# Anti-VAMP4 antibody ab3348

14 References 4 Images

### Overview

| | |
|---|---|
| **Product name** | Anti-VAMP4 antibody |
| **Description** | Rabbit polyclonal to VAMP4 |
| **Host species** | Rabbit |
| **Tested applications** | **Suitable for:** ICC/IF, WB, Electron Microscopy, IHC-Fr, IP, IHC-P |
| **Species reactivity** | **Reacts with:** Mouse, Rat, Human |
| **Immunogen** | Other Immunogen Type corresponding to Rat VAMP4. Recombinant rat VAMP4 protein. |
| **Positive control** | WB: PC3 cell extract ICC: CV-1 cells |

### Properties

| | |
|---|---|
| **Form** | Liquid |
| **Storage instructions** | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. |
| **Storage buffer** | Constituents: 0.1% BSA, 99% PBS |
| **Purity** | Immunogen affinity purified |
| **Primary antibody notes** | The vesicle associated membrane proteins (VAMP) or synaptobrevins are calcium binding proteins specific to eukaryotes. VAMPs, along with synaptosomal associated protein of 25 kDa (SNAP 25) and syntaxin, form the core complex of soluble NSF attachment protein receptor (SNARE) proteins that interact with the soluble proteins N-ethylmaleimide-sensitive factor (NSF) and alpha-SNAP. These membrane associated proteins play a key role in the regulation of vesicle membrane fusion with the plasma membrane. The Clostridium tetani neurotoxin is a metalloprotease with specificity for VAMP. In Alzheimer's disease, VAMP levels of all isoforms appear to be significantly lowered. |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |

### Applications

Our Abpromise guarantee covers the use of **ab3348** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|---|---|---|
| ICC/IF | | Use at an assay dependent concentration. |
| WB | | Use a concentration of 1 µg/ml. Detects a band of approximately 18 kDa (predicted molecular weight: 16 kDa). |
| Electron Microscopy | | Use at an assay dependent concentration. PubMed: 23770993 |
| IHC-Fr | | Use at an assay dependent concentration. PubMed: 21116650 |
| IP | | Use at an assay dependent concentration. PubMed: 17922004 |
| IHC-P | | Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. |

## Target

**Function**

Involved in the pathway that functions to remove an inhibitor (probably synaptotagmin-4) of calcium-triggered exocytosis during the maturation of secretory granules. May be a marker for this sorting pathway that is critical for remodeling the secretory response of granule.

**Sequence similarities**

Belongs to the synaptobrevin family.
Contains 1 v-SNARE coiled-coil homology domain.

**Cellular localization**

Golgi apparatus > trans-Golgi network membrane. Associated with trans Golgi network (TGN) and newly formed immature secretory granules (ISG). Not found on the mature secretory organelles.

## Images


Western blot - Anti-VAMP4 antibody (ab3348)

Anti-VAMP4 antibody (ab3348) at 1 µg/ml + Human brain tissue lysate - total protein (ab29466) at 10 µg

**Secondary**

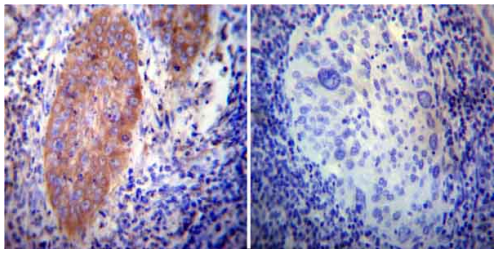
Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

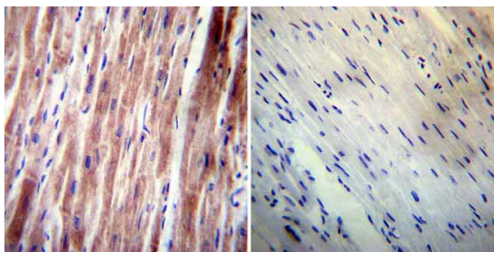
**Predicted band size:** 16 kDa
**Observed band size:** 16 kDa
**Additional bands at:** 36 kDa, 49 kDa, 75 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 30 seconds



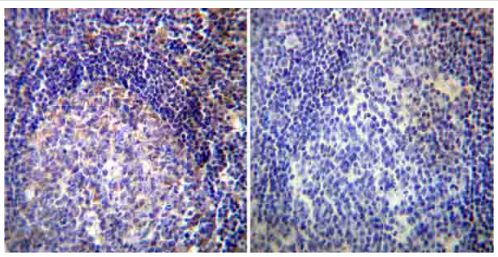
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VAMP4 antibody (ab3348)

Immunohistochemistry was performed on both normal and cancer biopsies of deparaffinized human cervical carcinoma tissue. To expose target proteins, heat induced antigen retrieval was performed using 10mM sodium citrate (pH 6.0) buffer, microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1/200 with a rabbit polyclonal antibody recognizing VAMP4 (ab3348) or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP, followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VAMP4 antibody (ab3348)

Immunohistochemistry was performed on both normal and cancer biopsies of deparaffinized human heart tissue. To expose target proteins, heat induced antigen retrieval was performed using 10mM sodium citrate (pH 6.0) buffer, microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1/200 with a rabbit polyclonal antibody recognizing VAMP4 (ab3348) or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP, followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VAMP4 antibody (ab3348)

Immunohistochemistry was performed on both normal and cancer biopsies of deparaffinized human tonsil tissue. To expose target proteins, heat induced antigen retrieval was performed using 10mM sodium citrate (pH 6.0) buffer, microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1/200 with a rabbit polyclonal antibody recognizing VAMP4 (ab3348) or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP,

followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



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