# Anti-SV2A Antibody [K70011_14F1]

## Catalog No. K70011C14F01C

### Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-SV2A Antibody [K70011_14F1]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibody specificity</td>
<td>Synaptic vesicle glycoprotein 2A</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Human, Rat</td>
</tr>
<tr>
<td>Clonality</td>
<td>Monoclonal</td>
</tr>
<tr>
<td>Clone number</td>
<td>K70011_14F1</td>
</tr>
<tr>
<td>Host / isotype</td>
<td>Mouse / IgG1</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Recombinant human SV2A</td>
</tr>
<tr>
<td>Cross reactivity</td>
<td>Not tested</td>
</tr>
</tbody>
</table>

**Kinetic characterization by BLI (biolayer interferometry):**

- Association rate constant ($k_\text{on}$): $5.42 \times 10^5 \text{ M}^{-1}\text{s}^{-1}$
- Dissociation rate constant ($k_\text{off}$): $9.55 \times 10^{-4} \text{s}^{-1}$
- Equilibrium dissociation constant ($K_D$): $1.76 \times 10^{-9} \text{M}$

**Purification:**

- Protein A purified from cell culture supernatants

**Form:**

- Liquid

**Concentration:**

- 1 mg/mL in phosphate buffered saline containing 0.09% preservative

**Conjugation:**

- Unconjugated

**Shipping, storage and shelf life:**

- *3 months when stored at 2 to 8 °C*
- *1 year when aliquoted and stored at -20 °C*
- *3 years when aliquoted and stored at -80 °C*

**Applications**

<table>
<thead>
<tr>
<th>Application</th>
<th>Recommended concentration</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western blot (WB)</td>
<td>1 µg/mL</td>
<td></td>
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<tr>
<td>Indirect ELISA</td>
<td>1 µg/mL</td>
<td></td>
</tr>
<tr>
<td>Immunohistochemistry-paraffin (IHC-P)</td>
<td>2.5 µg/mL</td>
<td></td>
</tr>
<tr>
<td>Immunoprecipitation (IP)</td>
<td>10 µg/mL</td>
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</tbody>
</table>

**Note:**

- The applications above have already been verified. The antibody may be suitable for additional applications.
- Optimal antibody concentrations for each application should be determined by the user.

### Additional information

**Target antigen**

- Protein name: Synaptic vesicle glycoprotein 2A
- Gene name: SV2A
- UniProt Accession: Q7L0J3
- Organism: *Homo sapiens* (Human)

**Paired antibody information**

- K70011_14F1 may pair with K70011_2D1 and K70011_4F11 for sandwich based immune assays.
Western blotting
15 µg of rat brain tissue lysate was run on 6-18% SDS-PAGE under reducing conditions and blotted onto nitrocellulose membrane. K70011_14F1 at 1 µg/mL was used as the primary antibody and peroxidase conjugated goat anti-mouse IgG was used as the secondary antibody. SV2A band was visualized using ECL Western Blotting Substrate. Result: K70011_14F1 can detect SV2A by Western blotting.

Immunohistochemistry
IHC-P analysis of human cerebral cortex tissue by anti-SV2A antibody (K70011_14F1). IHC-P was performed using sections of the formalin-fixed paraffin-embedded human cerebral cortex tissue. Antigen was retrieved through addition of boiling Tris/EDTA buffer pH 9 in a pressure cooker for 3 min. Endogenous peroxidase activity was quenched by incubating the sections with 3% H₂O₂ for 30 min at room temperature. The sections were then incubated with anti-SV2A primary antibody (K70011_14F1) at 2.5 µg/mL at room temperature for 1 h. Poly-peroxidase conjugated goat anti-mouse IgG was used as the secondary antibody. Diaminobenzidine was used as the chromogen. The section was counterstained with hematoxylin. A tissue section incubated with phosphate-buffered saline followed by incubation with the secondary antibody was used as the background control. Result: Neuropil are positively stained.

Immunoprecipitation
Immunoprecipitation was performed by incubation of 2.5 µg K70011_14F1 with rat brain tissue lysate containing 200 µg total protein. After absorption with Protein G beads, the mixture was run on 6-18% SDS-PAGE and blotted onto nitrocellulose membrane. Anti-human SV2A (K70011_11A02) at 1 µg/mL was used as the primary antibody and peroxidase conjugated goat anti-mouse IgG was used as the secondary antibody. The isotype control antibody was KT82. Lane 1: Rat brain tissue lysate Lane 2: SV2A immunoprecipitated from rat brain tissue lysate by K70011_14F1 Lane 3: The same as Lane 2 but KT82 was used as IgG isotype control antibody Result: K70011_14F1 can immunoprecipitate SV2A.