CPLX1
Polyclonal ANTIBODY
Catalog Number: 10246-2-AP

Basic Information

<table>
<thead>
<tr>
<th>Catalog Number:</th>
<th>GenBank Accession Number:</th>
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<tbody>
<tr>
<td>10246-2-AP</td>
<td>BC002471</td>
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<table>
<thead>
<tr>
<th>Source:</th>
<th>Full Name:</th>
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<tbody>
<tr>
<td>Rabbit</td>
<td>complex1</td>
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<table>
<thead>
<tr>
<th>Purification Method:</th>
<th>Calculated MW:</th>
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<tbody>
<tr>
<td>Antigen affinity purification</td>
<td>15 kDa</td>
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<tr>
<th>ImmuneMN Catalog Number:</th>
<th>Observed MW:</th>
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<tr>
<td>A00387</td>
<td>15-20 kDa</td>
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Recommended Dilutions:
- WB: 1:500-1:5000
- IHC: 1:20-1:200
- IF: 1:10-1:100

Applications

Tested Applications:
- IF, IHC, WB, ELISA

Cited Applications:
- IHC, WB

Species Specificity:
- human, mouse, rat

Cited Species:
- human, mouse, Rhesus macaques

Positive Controls:
- WB: mouse brain tissue; rat brain tissue
- IHC: mouse brain tissue
- IF: SH-SY5Y cells

Note: suggested antigen retrieval with TE buffer pH 9.0; alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Background Information

Complexin 1 (CPLX1) is a member of the complexin/synaphin gene family, which are cytosolic proteins that function in synaptic vesicle exocytosis. Complexins are enriched in neurons where they colocalize with syntaxin and SNAP-25. Complexins bind weakly to syntaxin alone and not at all to synaptobrevin and SNAP-25, but strongly to the SNAP receptor-core complex composed of these three molecules. Complexins also compete with alpha-SNAP for binding to the core complex but not with other interacting molecules, including synaptotagmin 1, and regulate the sequential interactions of alpha-SNAP and synaptotagmin with the SNAP receptor during exocytosis. CPLX1 binds to the SNAP receptor complex and disrupts it, leading to the release of transmitters. Alterations of complexins may contribute to the molecular substrate for abnormalities of neural connectivity in severe mental disorders.

Notable Publications

<table>
<thead>
<tr>
<th>Author</th>
<th>Pubmed ID</th>
<th>Journal</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandra Siegert</td>
<td>26005852</td>
<td>Nat Neurosci</td>
<td>WB</td>
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<tr>
<td>Nicole Arnold</td>
<td>27681124</td>
<td>J Virol</td>
<td>IHC</td>
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<tr>
<td>Jay Penney</td>
<td>28878036</td>
<td>J Neurosci</td>
<td>WB</td>
</tr>
</tbody>
</table>

Storage

Storage:
- Store at -20ºC. Stable for one year after shipment.

Storage Buffer:
- PBS with 0.1% sodium azide and 50% glycerol pH 7.3.
- Aliquoting is unnecessary for -20ºC storage

For technical support and original validation data for this product, please contact:
- T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA) or 1 (312) 455-8498 (outside USA)
- E: proteintech@ptglab.com
- W: ptglab.com

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Selected Validation Data

Mouse brain tissue were subjected to SDS PAGE followed by western blot with 10246-2-AP (CPLX1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.

Various lysates were subjected to SDS PAGE followed by western blot with 10246-2-AP (CPLX1 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.

Immunohistochemistry of paraffin-embedded mouse brain tissue slide using 10246-2-AP (CPLX1 Antibody) at dilution of 1:50 (under 40x lens).

Immunofluorescent analysis of SH-SY5Y cells using 10246-2-AP (CPLX1 antibody) at dilution of 1:25 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).