Technical Data Sheet

Purified Mouse Anti-AKAP82

Product Information

Material Number: 611564
Size: 50 µg
Concentration: 250 µg/ml
Clone: 25/AKAP82
Immunogen: Mouse AKAP82 aa. 555-675
Isotype: Mouse IgG1
Reactivity: QC Testing: Rat
Tested in Development: Mouse
Target MW: 82 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The cAMP-dependent Protein Kinase (PKA) is compartmentalized within the cell. To maintain the localization of PKA, the regulatory subunits interact with specific anchoring proteins. Several proteins have been identified as PKA anchoring proteins and form a family named AKAP (A-kinase Anchor Proteins). Fifteen of the AKAP proteins contain a consensus binding motif that allows interaction with the type II regulatory subunit (RII) of the PKA holoenzyme. In addition, three other AKAPs (D-AKAP1, D-AKAP2, and fsc1/AKAP82) can associate with the type I regulatory subunit (RI) of the PKA holoenzyme. AKAP82 was isolated as a component of the mouse sperm fibrous sheath. It is a dual specificity AKAP that contains an RII-binding domain (domain A; amino acids 219 to 232) and an RI-binding domain (domain B; amino acids 335-344). In mouse, pro-AKAP82 is synthesized as a 97 kDa precursor that is transported to the flagellum where proteolytic cleavage of the N-terminal 179 amino acids produces AKAP82. Assembly of AKAP82 into the fibrous sheath surrounding the axoneme of the sperm flagellum is thought to tether PKA close to the axoneme where it can regulate flagellar motility.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20°C.

Application Notes

Application

<table>
<thead>
<tr>
<th>Application</th>
<th>Routine Tested</th>
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<tbody>
<tr>
<td>Western blot</td>
<td>Routinely Tested</td>
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<tr>
<td>Immunofluorescence</td>
<td>Not Recommended</td>
</tr>
</tbody>
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Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml.
### Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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</thead>
<tbody>
<tr>
<td>611472</td>
<td>Rat Testis Lysate</td>
<td>500 µg</td>
<td>(none)</td>
</tr>
<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Ig</td>
<td>1.0 ml</td>
<td>(none)</td>
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### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

### References


