Technical Data Sheet

Purified Mouse Anti-DGKθ

Product Information

Material Number: 610931
Size: 150 µg
Concentration: 250 µg/ml
Clone: 24/DGKtheta
Immunogen: Human DGKθ aa. 677-883
Isotype: Mouse IgG1
QC Testing: Rat
Identified in Development: Human, Mouse, Rabbit
Reactivity: 110 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The protein kinase C pathway is a major signal transduction system that is activated upon stimulation of transmembrane receptors by hormones, neurotransmitters, and growth factors. Key mediators in this pathway are increased intracellular free Ca2+ levels and formation of diacylglycerol (DAG). DGKθ (diacylglycerol kinase θ) restricts PKC activation through the phosphorylation of DAG molecules that contain an unsaturated fatty acid at the sn-2 position to produce phosphatidic acid (PA). DGKθ contains several regions that are found in signaling molecules where they function in lipid-protein and protein-protein interactions. A C-terminal catalytic domain, three CRDs (cysteine rich domains), a PH domain, and an N-terminal proline/glycine rich domain are structural features of DGKθ. Six potential PKC phosphorylation sites lie between CRD3 and the PH domain. Cell-specific expression differentiate multiple isoforms of DGK. DGKθ is expressed primarily within the cerebellar cortex and hippocampus of the brain, but is also found in the small intestine and liver. The presence of the RA (Ras-associating) domain suggests that DGKθ may mediate activity of the Ras-like small GTP binding proteins.

Western blot analysis of DGKθ on rat brain lysate.

Immunofluorescent staining of SK-BR-3 cells.

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>Tested During Development</th>
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</thead>
<tbody>
<tr>
<td>Western blot</td>
<td>Routinely Tested</td>
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<tr>
<td>Immunofluorescence</td>
<td></td>
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<tr>
<td>Immunohistochemistry</td>
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**Suggested Companion Products**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>611463</td>
<td>Rat Cerebrum Lysate</td>
<td>500 µg</td>
<td>(none)</td>
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<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Ig</td>
<td>1.0 ml</td>
<td>(none)</td>
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<tr>
<td>554001</td>
<td>FITC Goat Anti-Mouse Ig</td>
<td>0.5 mg</td>
<td>Polyclonal</td>
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**Product Notices**

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to wwwbdbiosciencescompharmingenprotocols for technical protocols.
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**

