Product datasheet

Anti-Muscarinic Acetylcholine Receptor 2/CM2 antibody [31-1D1] ab2805

Overview

Product name: Anti-Muscarinic Acetylcholine Receptor 2/CM2 antibody [31-1D1]
Description: Mouse monoclonal [31-1D1] to Muscarinic Acetylcholine Receptor 2/CM2
Host species: Mouse
Specificity: This antibody is specific for the m2 mAChR subtype.
Tested applications: Suitable for: WB, IHC-P
Species reactivity: Reacts with: Mouse, Rat, Human, Pig
Does not react with: Chicken
Immunogen: Full length native protein (purified) corresponding to Pig Muscarinic Acetylcholine Receptor 2/CM2. Purified from Pig Heart.

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: Preservative: 0.05% Sodium azide
Constituent: 0.1% BSA
Purity: Protein A purified
Clonality: Monoclonal
Clone number: 31-1D1
Isotype: IgG1

Applications

Our Abpromise guarantee covers the use of ab2805 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
Function
The muscarinic acetylcholine receptor mediates various cellular responses, including inhibition of adenylate cyclase, breakdown of phosphoinositides and modulation of potassium channels through the action of G proteins. Primary transducing effect is adenylate cyclase inhibition.

Involvement in disease
Genetic variations in CHRM2 can influence susceptibility to major depressive disorder (MDD) [MIM:608516]. MDD is one of the most common psychiatric disorders. MDD is a complex trait characterized by one or more major depressive episodes without a history of manic, mixed, or hypomanic episodes. A major depressive episode is characterized by at least 2 weeks during which there is a new onset or clear worsening of either depressed mood or loss of interest or pleasure in nearly all activities. Four additional symptoms must also be present including changes in appetite, weight, sleep, and psychomotor activity; decreased energy; feelings of worthlessness or guilt; difficulty thinking, concentrating, or making decisions; or recurrent thoughts of death or suicidal ideation, plans, or attempts. The episode must be accompanied by distress or impairment in social, occupational, or other important areas of functioning.

Sequence similarities
Belongs to the G-protein coupled receptor 1 family. Muscarinic acetylcholine receptor subfamily. CHRM2 sub-subfamily.

Cellular localization

Images

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<th>Abreviews</th>
<th>Notes</th>
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<tr>
<td>WB</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/1000. Detects a band of approximately 64 kDa (predicted molecular weight: 52 kDa).</td>
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<tr>
<td>IHC-P</td>
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<td>1/20.</td>
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All lanes : Anti-Muscarinic Acetylcholine Receptor 2/CM2 antibody [31-1D1] (ab2805) at 1 µg/ml

Lane 1 : Human brain tissue lysate - total protein (ab29466)
Lane 2 : Human spinal cord tissue lysate - total protein (ab29188)
Lane 3 : Brain (Mouse) Tissue Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Mouse IgG H&L (HRP) preadsorbed (ab97040) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.
Predicted band size: 52 kDa

Observed band size: 64 kDa

why is the actual band size different from the predicted?

Additional bands at: 22 kDa, 40 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 30 seconds

Muscarinic Acetylcholine Receptor 2/CM2 contains a number of potential glycosylation sites (SwissProt) which may explain its migration at a higher molecular weight than predicted.

Immunohistochemistry was performed on normal biopsies of deparaffinized human kidney tissue. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer and 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 1:20 with a Mouse monoclonal antibody recognizing Muscarinic Acetylcholine Receptor 2/CM2 (ab2805) 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.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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