Product datasheet

Anti-beta 2 Adrenergic Receptor antibody [EPR707(N)]
ab182136

Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-beta 2 Adrenergic Receptor antibody [EPR707(N)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit monoclonal [EPR707(N)] to beta 2 Adrenergic Receptor</td>
</tr>
<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: WB, IHC-P</td>
</tr>
<tr>
<td></td>
<td>Unsuitable for: Flow Cyt or ICC/IF</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Mouse, Rat, Human</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) within Human beta 2 Adrenergic Receptor aa 350 to the C-terminus. The exact sequence is proprietary. Database link: P07550</td>
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<tr>
<td>Positive control</td>
<td>WB: Human fetal liver, Human skeletal muscle, Mouse heart, Rat heart, Rat stomach, Mouse cerebrum, Mouse kidney, Rat kidney, HeLa and A431 lysates; IHC-P: Human endometrial adenocarcinoma, Rat liver and stomach tissues, Human stomach and Mouse cerebrum.</td>
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</tbody>
</table>

General notes

Our RabMab® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents.

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

This product is a recombinant rabbit monoclonal antibody.

Properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
</tr>
</thead>
</table>
Storage buffer  
Preservative: 0.01% Sodium azide  
Constituents: 40% Glycerol, 59% PBS, 0.05% BSA

Purity  
Protein A purified

Clonality  
Monoclonal

Clone number  
EPR707(N)

Isotype  
IgG

Applications

Our Abpromise guarantee covers the use of ab182136 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/1000 - 1/10000. Detects a band of approximately 68 kDa (predicted molecular weight: 46 kDa).</td>
</tr>
</tbody>
</table>
| IHC-P       |          | 1/100.  
For unpurified use at 1/250.  
See IHC antigen retrieval protocols. |

Application notes  
Is unsuitable for Flow Cyt or ICC/IF.

Target

Function  
Beta-adrenergic receptors mediate the catecholamine-induced activation of adenylate cyclase through the action of G proteins. The beta-2-adrenergic receptor binds epinephrine with an approximately 30-fold greater affinity than it does norepinephrine.

Sequence similarities  
Belongs to the G-protein coupled receptor 1 family. Adrenergic receptor subfamily. ADRB2 sub-subfamily.

Post-translational modifications  
Palmitoylated; may reduce accessibility of Ser-345 and Ser-346 by anchoring Cys-341 to the plasma membrane. Agonist stimulation promotes depalmitoylation and further allows Ser-345 and Ser-346 phosphorylation.  
Phosphorylated by PKA and BARK upon agonist stimulation, which mediates homologous desensitization of the receptor. PKA-mediated phosphorylation seems to facilitate phosphorylation by BARK. Phosphorylated upon DNA damage, probably by ATM or ATR.  
Phosphorylation of Tyr-141 is induced by insulin and leads to supersensitization of the receptor.  
Ubiquitinated. Agonist-induced ubiquitination leads to sort internalized receptors to the lysosomes for degradation. Deubiquitination by USP20 and USP33, leads to ADRB2 recycling and resensitization after prolonged agonist stimulation. USP20 and USP33 are constitutively associated and are dissociated immediately after agonist stimulation.

Cellular localization  
Cell membrane.

Images
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat stomach tissue sections labeling beta 2 Adrenergic Receptor with Purified ab182136 at 1:100 dilution (1.28 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

All lanes: Anti-beta 2 Adrenergic Receptor antibody [EPR707(N)] (ab182136) at 0.1 µg/ml (purified)

Lane 1: A431 (Human epidermoid carcinoma epithelial cell) whole cell lysates
Lane 2: Human skeletal muscle lysates
Lane 3: Human fetal liver lysates
Lane 4: Mouse heart lysates
Lane 5: Rat heart lysates
Lane 6: Mouse kidney lysates
Lane 7: Rat kidney lysates

Lysates/proteins at 20 µg per lane.

Secondary

All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 46 kDa

Blocking and diluting buffer: 5% NFDM/TBST
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse cerebrum tissue sections labeling beta 2 Adrenergic Receptor with Purified ab182136 at 1:100 dilution (1.28 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human stomach tissue sections labeling beta 2 Adrenergic Receptor with Purified ab182136 at 1:100 dilution (1.28 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.
Immunohistochemical analysis of paraffin-embedded Rat liver tissue labeling beta 2 Adrenergic Receptor with unpurified ab182136 at 1/250 dilution followed by prediluted HRP-conjugated secondary antibody and counter-stained with Hematoxylin.

Immunohistochemical analysis of paraffin-embedded Human endometrial adenocarcinoma tissue labeling beta 2 Adrenergic Receptor with unpurified ab182136 at 1/250 dilution followed by prediluted HRP-conjugated secondary antibody and counter-stained with Hematoxylin.

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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