Product datasheet

Anti-beta Actin antibody [SP124] ab115777

Overview

Product name: Anti-beta Actin antibody [SP124]
Description: Rabbit monoclonal [SP124] to beta Actin
Host species: Rabbit
Tested applications: Suitable for: WB, IHC-P, ICC/IF, Flow Cyt
Species reactivity: Reacts with: Mouse, Rat, Human
Predicted to work with: Rabbit, Chicken, Cow, Dog, Pig
Immunogen: Synthetic peptide within Human beta Actin aa 1-100 (N terminal). The exact sequence is proprietary.
Database link: P60709
Positive control: IHC-P: Human Placenta, Human placenta, Mouse placenta, and Rat placenta tissue; WB: Raji cell lystate; FC: HeLa, NIH/3T3, and C6 cells; ICC: NIH/3T3, and C6 cells.
General notes: This product is a recombinant rabbit monoclonal antibody.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer: pH: 7.6
Preservative: 0.1% Sodium azide
Constituents: PBS, 1% BSA
Purity: Protein A/G purified
Purification notes: Purified from TCS by protein A/G.
Clonality: Monoclonal
Clone number: SP124
Isotype: IgG
Function
Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.

Involvement in disease
Defects in ACTB are a cause of dystonia juvenile-onset (DYTJ) [MIM:607371]. DYTJ is a form of dystonia with juvenile onset. Dystonia is defined by the presence of sustained involuntary muscle contraction, often leading to abnormal postures. DYTJ patients manifest progressive, generalized, dopa-unresponsive dystonia, developmental malformations and sensory hearing loss.

Sequence similarities
Belongs to the actin family.

Post-translational modifications
ISGylated.

Cellular localization
Cytoplasm > cytoskeleton. Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

Applications

Our Abpromise guarantee covers the use of ab115777 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>
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<tbody>
<tr>
<td>IHC-P</td>
<td>1/200. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Boil tissue section in 10mM citrate buffer, pH 6.0 for 10 min followed by cooling at room temperature for 20 min.</td>
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<tr>
<td>ICC/IF</td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>Flow Cyt</td>
<td>Use at an assay dependent concentration. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.</td>
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</tbody>
</table>

Target

Images

ab115777 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat placenta tissue sections labeling beta Actin with ab115777 at 1/100 dilution (0.68 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with citrate sodium buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Goat Anti-Rabbit & Mouse IgG (HRP) 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 Mouse placenta tissue sections labeling beta Actin with ab115777 at 1/200 dilution (0.34 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with citrate sodium buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Goat Anti-Rabbit & Mouse IgG (HRP) 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 placenta tissue sections labeling beta Actin with ab115777 at 1/200 dilution (0.34 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with citrate sodium buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Goat Anti-Rabbit & Mouse IgG (HRP) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

Immunocytochemistry/Immunofluorescence analysis of C6 (rat glial tumor glial cell) cells labeling beta Actin with purified ab115777. Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

Flow Cytometry analysis of C6 (rat glial tumor glial cell) cells labeling beta Actin with purified ab115777 - Red. Cells were fixed with 4% paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) was used as the secondary antibody. Isotype control - Rabbit monoclonal IgG (ab172730) - Black. Unlabeled control - Blue.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta Actin antibody [SP124] (ab115777)

Staining of Human beta Actin in a Formalin/PFA-fixed paraffin-embedded section of Human Placenta using ab115777 at a dilution of 1/200.

Immunocytochemistry/ Immunofluorescence - Anti-beta Actin antibody [SP124] (ab115777)

Immunocytochemistry/ Immunofluorescence analysis of NIH/3T3 (mouse embryonic fibroblast) cells labeling beta Actin with purified ab115777. Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

Flow Cytometry - Anti-beta Actin antibody [SP124] (ab115777)

Flow Cytometry analysis of NIH/3T3 (mouse embryonic fibroblast) cells labeling beta Actin with purified ab115777 - Red. Cells were fixed with 4% paraformaldehyde . A Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) was used secondary antibody. Isotype control - Rabbit monoclonal IgG (ab172730) - Black. Unlabeled control - Blue.
Flow Cytometry analysis of HeLa (human cervix adenocarcinoma epithelial cell) cells labeling beta Actin with purified ab115777 - Red. Cells were fixed with 4% paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) was used as the secondary antibody. Isotype control - Rabbit monoclonal IgG (ab172730) - Black. Unlabeled control - Blue.

Flow Cytometry - Anti-beta Actin antibody [SP124] (ab115777)

Western blot - Anti-beta Actin antibody [SP124] (ab115777)

Anti-beta Actin antibody [SP124] (ab115777) at 1/200 dilution + Raji cell lystate

**Predicted band size:** 42 kDa

Flow cytometric analysis of rabbit anti-beta Actin (SP124) antibody ab115777 in HeLa cells (green) compared to negative control of rabbit IgG (blue)

Flow Cytometry - Anti-beta Actin antibody [SP124] (ab115777)

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