Product Datasheet

Myosin Heavy Chain Antibody (3-48)

NB300-284

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

Reviews: 2  Publications: 8

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB300-284

Updated 11/8/2017 v.20.1

Earn rewards for product reviews and publications.
Submit a publication at www.novusbio.com/publications
Submit a review at www.novusbio.com/reviews/destination/NB300-284
### Product Information

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Size</td>
<td>0.1 mg</td>
</tr>
<tr>
<td>Concentration</td>
<td>Please see the vial label for concentration. If unlisted please contact technical services.</td>
</tr>
<tr>
<td>Storage</td>
<td>Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.</td>
</tr>
<tr>
<td>Clonality</td>
<td>Monoclonal</td>
</tr>
<tr>
<td>Clone</td>
<td>3-48</td>
</tr>
<tr>
<td>Preservative</td>
<td>No Preservative</td>
</tr>
<tr>
<td>Isotype</td>
<td>IgG1 Kappa</td>
</tr>
<tr>
<td>Purity</td>
<td>Protein A or G purified</td>
</tr>
<tr>
<td>Buffer</td>
<td>No buffer</td>
</tr>
</tbody>
</table>

### Product Description

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host</td>
<td>Mouse</td>
</tr>
<tr>
<td>Gene ID</td>
<td>79784</td>
</tr>
<tr>
<td>Gene Symbol</td>
<td>MYH14</td>
</tr>
<tr>
<td>Species</td>
<td>Human, Mouse, Rat</td>
</tr>
<tr>
<td>Reactivity Notes</td>
<td>It is expected to also recognize a and b heavy chain from canine, bovine and rabbit cardiac tissues. Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Additional Mouse on Mouse blocking steps may be required for IHC and ICC experiments. Please contact Technical Support for more information.</td>
</tr>
<tr>
<td>Specificity/Sensitivity</td>
<td>This is myosin alpha and beta heavy chain specific. It binds to A-band of thick filament of cardiac and skeletal muscle myosin as determined by indirect immunofluorescence on cryocuts, and indirect immunoperoxidase staining of Carnoy fixed tissues.</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Full length native protein (purified) (Human).</td>
</tr>
</tbody>
</table>

### Product Application Details

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications</td>
<td>Western Blot, ELISA, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin</td>
</tr>
<tr>
<td>Recommended Dilutions</td>
<td>Western Blot 1:500, ELISA, Immunohistochemistry 1:300, Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Paraffin 1:300</td>
</tr>
<tr>
<td>Application Notes</td>
<td>Please only use IgG specific secondaries with this product. Fab region specific secondaries may not detect this antibody.</td>
</tr>
</tbody>
</table>
Western Blot: Myosin Heavy Chain Antibody (3-48) [NB300-284] - analysis of total cardiac myosin expression in tissue lysates of rat heart (lanes 1-5), liver (lanes 6-7), and lung (lanes 8-9). Increasing amounts of total protein were loaded as follow: lanes 1, 6 and 8: 0 ug; lane 2: 50 ug; lanes 3, 7 and 9: 250 ug; lane 5: 500 ug. (anti-cMHC was used at 1:500; secondary antibody: Goat anti-mouse IgG Fc-HRP; 1:5000)

Immunohistochemistry-Paraffin: Myosin Heavy Chain Antibody (3-48) [NB300-284] - Formaldehyde-fixed paraffin-embedded (FFPE) Tissue Slides. Human heart ventricle following immunostaining with cMHC 3-48 and irrelevant NeuAc monoclonal antibody at low microscopical magnification.

Publications


Details:
Myosin heavy chain antibody (clone 3-48) used in WB application as myogenic differentiation markers on C2C12 cells, a mouse myoblast cell line, transfected or not with Nse2-specific siRNA - siNse2 (Figure 3C).


## Procedures

### Immunohistochemistry-Paraffin Protocol Specific for NB300-284: Myosin heavy chain Antibody (3-48)

#### Materials

1. 1 Phosphate buffered saline (pH 7.6): NaCl 137mmol/L, KCl 2.7mmol/L, Na2HPO4 4.3mmol/L, KH2PO4 1.4 mmol/L
2. Citrate buffer, 0.01 M, pH6.0, Sodium Citrate 3g, Citric acid 0.4g
3. 3% Hydrogen peroxide
4. Primary antibody
5. Blocking serum (normal serum)
6. Biotinylated secondary antibody
7. DAB staining kit

#### Methods

1. Dewax and hydration of slides using xylene and EtOH:
   - Dry slides for 20 min in a 60°C oven
   - Add Xylene, 2 x 10 min
   - 100%, 95%, 80%, and 70% EtOH, 5 min each EtOH concentration
   - Rinse in PBS, 5'

2. Antigen retrieval method (only for paraffin slides)
   1a. High-pressure antigen retrieval procedure (recommended method)
   - Place slides in a glass slide holder (ensure that the slide holder is completely filled with slides, slides without sections if necessary, to ensure even heating. The entire slide holder is immersed in 1000 ml of Citrate buffer (0.01M, pH6.0) within a pressure cooker
   - Once steam is produced, and ONLY when steam is visible, from the pressure cooker (usually 15-20 min), the required high-pressure will have been reached, and slides will be incubated for 2 min.
   - Turn off heat, and allow buffer and slides to cool to room temperature
   - Slides are then rinsed in PBS for 5 minutes
   - 2. Add 3% hydrogen peroxide solution, 10'at RT, then PBS, 3X5'
   - 3. Normal blocking serum, 20'at RT
   - 4. Incubate with Primary Ab, 4C overnight or 1.5 hours at 37C
   - 5. Rinse with PBS, 3 X 5' each rinse
   - 6. Add Biotin-conjugated second antibody, 10'at RT
   - 7. Rinse with PBS, 3 X 5' each rinse
   - 8. Add Streptavidin-Peroxidase, 10'at RT
   - 9. Rinse with PBS, 3 X 5' each rinse
   - 10. Staining with DAB solution, 2-5'under microscope
   - 11. Stop the reaction by washing in tap water
   - 12. Counterstain in Haematoxylin for 3-5 minutes
   - 13. 75%, 80%, 95% and 100% ethanol, 5x2', xylene 2 x 10'
Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NB300-284

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications