Overview

Product name
Anti-MyoD1 antibody [5.2F] ab16148

Description
Mouse monoclonal [5.2F] to MyoD1

Host species
Mouse

Specificity
This antibody does not cross react with Myogenin, Myf5, or Myf6.

Tested applications
Suitable for: ICC/IF, Sandwich ELISA, ELISA, IP, IHC-P, IHC-Fr, Electron Microscopy, WB

Species reactivity
Reacts with: Mouse, Rat, Chicken, Human

Predicted to work with: Sheep, Cow, Pig

Immunogen
Synthetic peptide corresponding to Mouse MyoD1 aa 3-56 (N terminal).
Sequence:
LLSPPLRDDLGTGDGLCSFETADDYDDPCFDSPD
LRFFEDLDPRVLHVVGAL

Positive control
Rhabdomyosarcoma.

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. Avoid freeze / thaw cycle.

Storage buffer
Preservative: 0.08% Sodium azide
Constituent: PBS

Purity
Immunogen affinity purified

Clonality
Monoclonal

Clone number
5.2F

Myeloma
Sp2/0-Ag14

Isotype
IgG2a

Applications

Our Abpromise guarantee covers the use of ab16148 in the following tested applications.

Our Abreviews, References and Images show that ab16148 has been tested in the following applications and species.
**Function**
Involved in muscle differentiation (myogenic factor). Induces fibroblasts to differentiate into myoblasts. Activates muscle-specific promoters. Interacts with and is inhibited by the twist protein. This interaction probably involves the basic domains of both proteins.

**Sequence similarities**
Contains 1 basic helix-loop-helix (bHLH) domain.

**Post-translational modifications**
Acetylated by a complex containing EP300 and PCAF. The acetylation is essential to activate target genes. Conversely, its deacetylation by SIRT1 inhibits its function. Ubiquitinated on the N-terminus; which is required for proteasomal degradation.

**Cellular localization**
Nucleus.

### Application Notes

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICC/IF</td>
<td>🌟🌟🌟🌟🌟🌟🌟🌟</td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>Sandwich ELISA</td>
<td></td>
<td>Use a concentration of 5 µg/ml. Can be paired for Sandwich ELISA with Rabbit polyclonal to MyoD1 (ab64159). For sandwich ELISA, use this antibody as Capture at 5 µg/ml with Rabbit polyclonal to MyoD1 (ab64159) as Detection.</td>
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<tr>
<td>ELISA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>IP</td>
<td></td>
<td>Use at 2 µg/mg of lysate.</td>
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<tr>
<td>IHC-P</td>
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<td>Use a concentration of 2 - 4 µg/ml.</td>
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<tr>
<td>IHC-Fr</td>
<td>🌟🌟🌟🌟🌟🌟🌟🌟</td>
<td>Use a concentration of 2 - 4 µg/ml.</td>
</tr>
<tr>
<td>Electron Microscopy</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>WB</td>
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<td>Use a concentration of 1 µg/ml. Predicted molecular weight: 35 kDa.</td>
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</tbody>
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### Target Images

2
**Western blot - Anti-MyoD1 antibody [5.2F] (ab16148)**  
This image is courtesy of an anonymous Abreview

All lanes: Anti-MyoD1 antibody [5.2F] (ab16148) at 1/1000 dilution

Lane 1: Mouse muscle tissue lysate  
Lane 2: Mouse liver tissue lysate

Lysates/proteins at 25 µg per lane.

**Secondary**

All lanes: HRP-conjugated goat anti-mouse IgG polyclonal at 1/20000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 35 kDa  
**Observed band size:** 35 kDa

**Exposure time:** 20 seconds

ab16148 staining MyoD1 in rat differentiated skeletal muscle cells by Immunocytochemistry/Immunofluorescence. The cells were fixed in paraformaldehyde and then blocked using 2% serum for 1 hour. Samples were then incubated with primary antibody at 1/200 for 8 hours. The secondary antibody used was a goat anti-mouse IgG conjugated to Alexa Fluor® 488 (green) used at a 1/1000 dilution. DAPI was used to stain the cell nuclei (blue).
Immunohistochemical staining using ab16148 at 2ug/ml on formalin fixed, paraffin embedded samples of human rhabdomyosarcoma.

Standard Curve for Myo-D; dilution range 1 pg/ml to 1 ug/ml using Capture Antibody Mouse monoclonal [5.2F] to MyoD1 (ab16148) at 5ug/ml and Detector Antibody Rabbit polyclonal to MyoD1 (ab64159) at 0.1ug/ml.

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