

## Product datasheet

# Anti-beta Dystroglycan antibody [EP2200Y] ab62373

KO VALIDATED Recombinant RabMAB

3 Images

### Overview

<b>Product name</b>	Anti-beta Dystroglycan antibody [EP2200Y]
<b>Description</b>	Rabbit monoclonal [EP2200Y] to beta Dystroglycan
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: Mouse brain, heart, and skeletal muscle tissue lysates; HepG2, HEK293T, Neuro2a and NIH/3T3 whole cell lysates.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAB<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAB<sup>®</sup> patents</a>.</p> <p>Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), 59% PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal

Clone number EP2200Y  
Isotype IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab62373 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

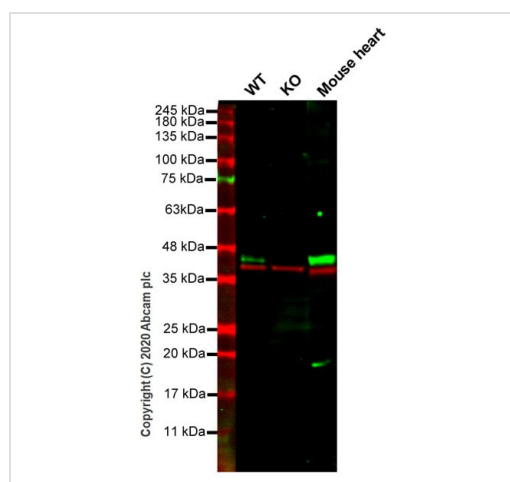
Application	Abreviews	Notes
WB		1/1000 - 1/2000. Detects a band of approximately 43 kDa. Predicted molecular weight: 97 kDa (Dystroglycan is expressed as a precursor protein that is cleaved into alpha and beta dystroglycan. The beta dystroglycan fragment is about 43 kDa).

## Target

**Relevance** Dystroglycans are essential elements of the neuromuscular junction (NMJ). The gene for dystroglycan is expressed as a precursor protein that is post translationally cleaved into a 156 kDa extracellular peripheral membrane protein called alpha dystroglycan and a 43 kDa transmembrane protein, beta dystroglycan. The latter protein contains a PPxY motif that promotes binding to WW domain containing proteins, such as utrophin and dystrophin. Phosphorylation at tyrosine 892 within the PPxY motif may regulate c Src interactions with beta dystroglycan, as well as inhibit interactions with WW domain proteins. In skeletal muscle, beta dystroglycan is normally localized to the plasma membrane, however phosphorylation of Tyr892 leads to localization of beta dystroglycan to endosomal compartments along with c Src. Thus, phosphorylation at Tyr892 may have important roles in altering the localization of beta dystroglycan during NMJ formation.

**Cellular localization** Type I membrane protein.

## Images



Western blot - Anti-beta Dystroglycan antibody [EP2200Y] (ab62373)

**All lanes** : Anti-beta Dystroglycan antibody [EP2200Y] (ab62373) at 1/500 dilution

**Lane 1** : Wild-type HEK293T cell lysate

**Lane 2** : DAG1 knockout HEK293T cell lysate

**Lane 3** : Mouse heart tissue lysate

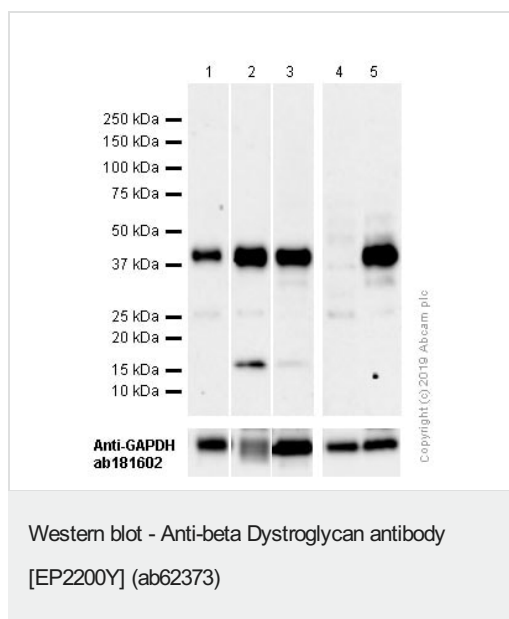
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

**Observed band size:** 43 kDa

**Lanes 1-3:** Merged signal (red and green). Green - ab62373 observed at 43 kDa. Red - loading control, **ab8245** observed at 37 kDa.

ab62373 Anti-beta Dystroglycan antibody [EP2200Y] was shown to specifically react with beta Dystroglycan in wild-type HEK293T cells. Loss of signal was observed when knockout cell line **ab266263** (knockout cell lysate **ab257192**) was used. Wild-type and beta Dystroglycan knockout samples were subjected to SDS-PAGE. ab62373 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 500 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 10000 dilution for 1 hour at room temperature before imaging.



**All lanes :** Anti-beta Dystroglycan antibody [EP2200Y] (ab62373) at 0.526 µg/ml (Purified)

**Lane 1 :** Mouse brain lysate

**Lane 2 :** Mouse heart lysate

**Lane 3 :** Mouse skeletal muscle

**Lane 4 :** Neuro-2a (Mouse neuroblastoma cell line) whole cell lysate

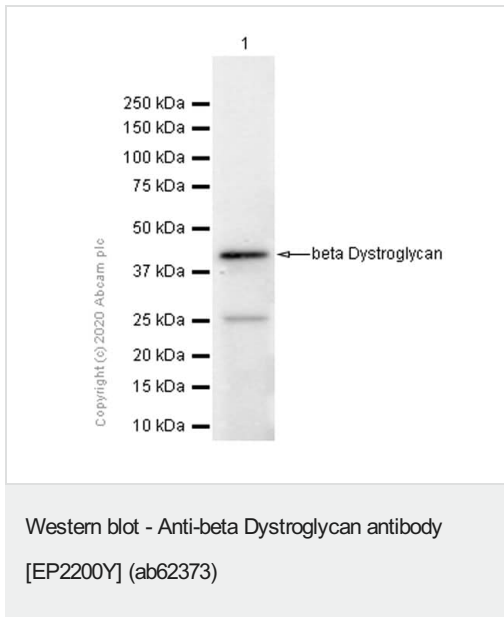
**Lane 5 :** NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 0.05 µg/ml

**Blocking Buffer:** 5% NFDM /TBST



Anti-beta Dystroglycan antibody [EP2200Y] (ab62373) at 1/1000 dilution (Purified) + HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate at 15 µg

### Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Observed band size:** 43 kDa

Blocking buffer: 5% NFD/MTBST

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

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