# abcam

# Product datasheet

# Anti-Telethonin antibody [EPR8375] ab133646

Recombinant RabMAb

★★★★★ 2 Abreviews 3 References 5 Images

#### Overview

**Product name** Anti-Telethonin antibody [EPR8375]

**Description** Rabbit monoclonal [EPR8375] to Telethonin

**Host species** Rabbit

**Tested applications** Suitable for: WB

Unsuitable for: ICC/IF or IHC-P

Species reactivity Reacts with: Mouse, Rat, Human

**Immunogen** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control Fetal muscle and fetal heart lysates

**General notes** This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information **see here**.

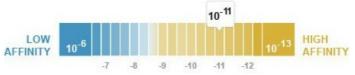
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

#### **Properties**

**Form** Liquid

Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C. Storage instructions

Dissociation constant (K<sub>D</sub>)  $K_D = 1.30 \times 10^{-11} M$ 



Learn more about K<sub>D</sub>

Storage buffer pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture

supernatant

Purity Tissue culture supernatant

ClonalityMonoclonalClone numberEPR8375

**Isotype** IgG

### **Applications**

The Abpromise guarantee Our Abpromise guarantee covers the use of ab133646 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	<b>★★★★★ (2)</b>	1/1000 - 1/10000. Predicted molecular weight: 19 kDa.

**Application notes** Is unsuitable for ICC/IF or IHC-P.

#### **Target**

Function Muscle assembly regulating factor. Mediates the antiparallel assembly of titin (TTN) molecules at

the sarcomeric Z-disk.

**Tissue specificity** Heart and skeletal muscle.

Involvement in disease Defects in TC

Defects in TCAP are a cause of cardiomyopathy familial hypertrophic (CMH) [MIM:192600]; also designated FHC or HCM. Familial hypertrophic cardiomyopathy is a hereditary heart disorder characterized by ventricular hypertrophy, which is usually asymmetric and often involves the interventricular septum. The symptoms include dyspnea, syncope, collapse, palpitations, and chest pain. They can be readily provoked by exercise. The disorder has inter- and intrafamilial variability ranging from benign to malignant forms with high risk of cardiac failure and sudden

cardiac death.

Defects in TCAP are a cause of limb-girdle muscular dystrophy type 2G (LGMD2G)

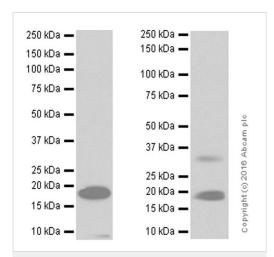
[MIM:601954]. LGMD2G is an autosomal recessive degenerative myopathy characterized by proximal and distal muscle weakness and atrophy in the limbs, dystrophic changes on muscle biopsy, and absence of telethonin. Cardiac muscle is involved in a subset of patients.

Defects in TCAP are the cause of cardiomyopathy dilated type 1N (CMD1N) [MIM:607487]. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature

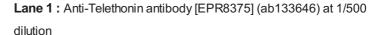
death.

**Cellular localization** Cytoplasm > myofibril > sarcomere.

#### **Images**



Western blot - Anti-Telethonin antibody [EPR8375] (ab133646)



**Lane 2**: Anti-Telethonin antibody [EPR8375] (ab133646) at 1/5000 dilution

Lane 1 : Rat Muscle tissue lysate
Lane 2 : Rat Heart tissue lysate

Lysates/proteins at 15 µg per lane.

# **Secondary**

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

Predicted band size: 19 kDa
Observed band size: 19 kDa

Exposure time: 1 minute

Blocking buffer 5% NFDM/TBST

Diluting buffer 5% NFDM/TBST

All land

**All lanes :** Anti-Telethonin antibody [EPR8375] (ab133646) at 1/5000 dilution

Lane 1: Human skeletal muscle tissue lysate

Lane 2: C2C12 cell lysate

Lane 3: Mouse heart tissue lysate

Lane 4: Mouse muscle tissue lysate

Lysates/proteins at 20 µg per lane.

# 150 kDa — 100 kDa — 75 kDa — 50 kDa — 37 kDa — 25 kDa — 20 kDa — 10 kDa — 10 kDa —

2

250 kDa -

3

Western blot - Anti-Telethonin antibody [EPR8375] (ab133646)

# Secondary

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

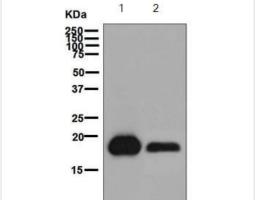
Predicted band size: 19 kDa

Observed band size: 19 kDa

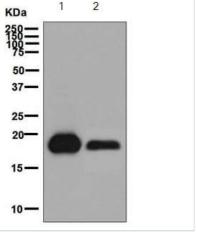
Exposure time: 1 minute

Blocking buffer 5% NFDM/TBST

Diluting buffer 5% NFDM/TBST



Western blot - Anti-Telethonin antibody [EPR8375] (ab133646)





All lanes: Anti-Telethonin antibody [EPR8375] (ab133646) at 1/1000 dilution

Lane 1: Fetal muscle lysate Lane 2: Fetal heart lysate

Lysates/proteins at 10 µg per lane.

**Secondary** 

All lanes: HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 19 kDa

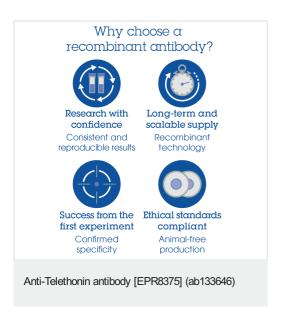
Telethonin Probe Conc EPR8375 \_\_\_ 99 nM 14.0 Surface Density (ng/mm²)
8.0
6.0
4.0
0.0
0.0 11 nM  $\begin{array}{lll} & \text{kon } [1/\left(\text{sec-M}\right)] = & (9.33 \pm 0.04) \, \text{E4} \\ & \text{koff } [1/\text{sec}] = & (1.21 \pm 0.09) \, \text{E-6} \\ & \text{Kd } [\text{M}] = & (1.3 \pm 0.1) \, \text{E-11} \end{array}$ Fit RMSE [ng/mm²] = 1.9 E-1 Median Baseline Noise [ng/mm²] = 6.2 E-2 Median Association Signal [ng/mm²] = 6.2 E0 Median Assoc. Endpoint SNR = 1.1 E2 RMSE / Noise = 3.1 E0 -2.0 0 30 60 90 -30 135 Time (min)

Ol-RD Scanning - Anti-Telethonin antibody [EPR8375] (ab133646)

Equilibrium disassociation constant (K<sub>D</sub>)

Learn more about K<sub>D</sub>

Click here to learn more about KD



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

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- We investigate all quality concerns to ensure our products perform to the highest standards

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