abcam

Product datasheet

Anti-beta Dystroglycan antibody ab43125

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Overview

Product name	Anti-beta Dystroglycan antibody
Description	Rabbit polyclonal to beta Dystroglycan
Host species	Rabbit
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rabbit, Cow, Dog
Immunogen	Synthetic peptide conjugated to KLH derived from within residues 650 - 750 of Human Dystroglycan precursor.Read Abcam's proprietary immunogen policy(Peptide available as **ab43750**.)
Positive control	WB: Human brain, heart, skeletal muscle, testes (data not shown), kidney (data not shown), colon (data not shown) tissue lysates and HEK293T cell lysate.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab43125 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

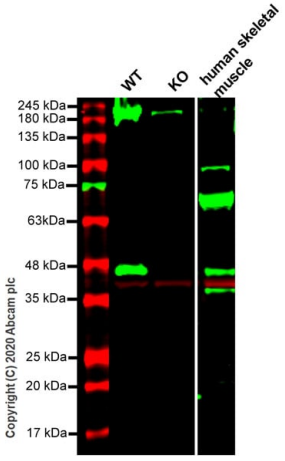
Application	Abreviews	Notes
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 43 kDa (predicted molecular weight: 43 kDa).

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 (ab43125)

All lanes : Anti-beta Dystroglycan antibody (ab43125) at 1/500 dilution

Lane 1 : Wild-type HEK293T cell lysate
Lane 2 : DAG1 knockout HEK293T cell lysate
Lane 3 : Human skeletal muscle tissue lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 43 kDa
Observed band size: 43 kDa

Lanes 1-3: Merged signal (red and green). Green - ab43125 observed at 43 kDa. Red - loading control, **ab8245** observed at 37 kDa.

ab43125 Anti-beta Dystroglycan antibody 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. ab43125 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.

Western blot - Anti-beta Dystroglycan antibody (ab43125)

All lanes : Anti-beta Dystroglycan antibody (ab43125) at 1 µg/ml

Lane 1 : Human brain tissue lysate - total protein (**ab29466**)
Lane 2 : Human heart tissue lysate - total protein (**ab29431**)
Lane 3 : Human skeletal muscle tissue lysate - total protein (**ab29330**)

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 43 kDa
Observed band size: 43 kDa

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