

# $\beta$ -Dystroglycan (C-terminal Region)

Cat. # DM2051

Host Mouse Monoclonal IgG2a

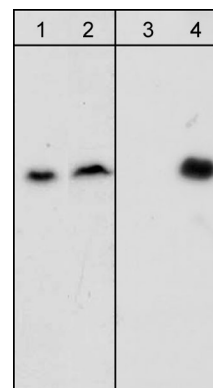
Size 100  $\mu$ l

## **Background:**

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 Tyr-892 leads to localization of  $\beta$ -dystroglycan to endosomal compartments along with c-Src. Thus, phosphorylation at Tyr-892 may have important roles in altering the localization of  $\beta$ -dystroglycan during NMJ formation.

## **References**

James, M. et al. (2000) J Cell Sci. 113(Pt 10):1717-1726.  
Sotgia, F. et al. (2003) Biochem. 42(23):7110-7123.



Western blot analysis of HepG2 cells untreated (lanes 1 & 3) or treated with pervanadate (1 mM) for 30 min (lanes 2 & 4). Blots were probed with anti- $\beta$ -dystroglycan (lanes 1 & 2) and anti- $\beta$ -dystroglycan (Tyr-892) (lanes 3 & 4).

## **Immunogen:**

Clone (M205) was generated from a recombinant protein corresponding to the C-terminal region of human  $\beta$ -dystroglycan. This sequence has high homology to the conserved region in mouse, cow, and rabbit  $\beta$ -dystroglycan.

## **Applications:**

WB 1:1000  
ELISA 1:2000

End user should determine optimal dilution for their particular applications and experiments.  
Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

## **Related Products:**

DM1171  $\beta$ -Dystroglycan (Tyr-892), phospho-specific Mouse Monoclonal  
AP2041 Atrogin-1 Rabbit Polyclonal  
SP1371 c-Src (Tyr-215), phospho-specific [Conserved site] Rabbit Polyclonal

## **Buffer and Storage:**

Mouse monoclonal antibody purified with protein A chromatography is supplied in 100 $\mu$ l phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at  $-20^{\circ}$ C. Do not aliquot. Stable for 1 year.

## **Specificity:**

The antibody detects a 43 kDa\* protein on SDS-PAGE immunoblots of human HepG2, Hct116, and HeLa cells.

\*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

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