**BACKGROUND**

Dystroglycan (DG) is a cell surface receptor for several extracellular matrix molecules including Laminins, Agrin and Perlecan. Dystroglycan function is required for the formation of basement membranes in early development and the organization of laminin on the cell surface. α-dystroglycan is a membrane-associated, extracellular glycoprotein that is anchored to the cell membrane by binding to the transmembrane glycoprotein β-dystroglycan to form an α/β-dystroglycan-complex. Additionally, dystroglycan is part of a multimolecular complex, where it associates with dystrophin, at the sarcolemma, to form the dystrophin-associated protein complex or with utrophin, at the neuromuscular junction, to form the utrophin-associated protein complex. Dystroglycan is also thought to participate in the clustering of nicotinic acetylcholine receptors at the neuromuscular junction.

**CHROMOSOMAL LOCATION**

Genetic locus: DAG1 (human) mapping to 3p21.31; Dag1 (mouse) mapping to 9 F2.

**SOURCE**

β-dystroglycan (7D11) is a mouse monoclonal antibody raised against the C-terminus of β-dystroglycan of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

β-dystroglycan (7D11) is available conjugated to agarose (sc-33701 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-33701 HRP), 200 µg/ml, for WB, HICP and ELISA; to either phycoerythrin (sc-33701 PE), fluorescein (sc-33701 FITC), Alexa Fluor® 488 (sc-33701 AF488), Alexa Fluor® 546 (sc-33701 AF546), Alexa Fluor® 594 (sc-33701 AF594) or Alexa Fluor® 647 (sc-33701 AF647), 200 µg/ml, for WB (RGB), IF, IHQF and FCM; and to either Alexa Fluor® 680 (sc-33701 AF680) or Alexa Fluor® 790 (sc-33701 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

β-dystroglycan (7D11) is recommended for detection of β-dystroglycan of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1,000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for α/β-dystroglycan siRNA (h): sc-43488, α/β-dystroglycan siRNA (m): sc-43489, α/β-dystroglycan shRNA Plasmid (h): sc-43488-SH, α/β-dystroglycan shRNA Plasmid (m): sc-43489-SH, α/β-dystroglycan shRNA (h) Lentiviral Particles: sc-43488-V and α/β-dystroglycan shRNA (m) Lentiviral Particles: sc-43489-V.

Molecular Weight of β-dystroglycan precursor: 97 KDa.

Molecular Weight of mature β-dystroglycan: 43 KDa.

Positive Controls: mouse brain extract: sc-2253, NIH/3T3 whole cell lysate: sc-2210 or C6 whole cell lysate: sc-36437.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

β-dystroglycan (7D11) sc-33701. Western blot analysis of β-dystroglycan expression in NIH/3T3 whole cell lysate (A) and mouse brain tissue extract (B).

β-dystroglycan (7D11) sc-33701. Immunofluorescence staining of methanol-fixed L6 cells showing membrane localization (A), Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing membrane, cytoplasmic and nuclear staining of trophoblastic cells and decidua cells (B).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

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**SANTA CRUZ BIOTECHNOLOGY, INC.**

β-dystroglycan (7D11): sc-33701