For Research Use Only

Dystroglycan Monoclonal antibody

Catalog Number:66735-1-Ig Featured Product 2 Publications

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Basic Information

Catalog Number:
66735-1-Ig

Size:
150ul , Concentration: 1000 ug/ml by Nanodrop and 487 ug/ml by Bradford method using BSA as the standard;

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG27222

GenBank Accession Number:
BC012740

GeneID (NCBI):
1605

UNIPROT ID:
Q14118

Full Name:
dystroglycan 1 (dystrophin-associated glycoprotein 1)

Calculated MW:
97 kDa

Observed MW:
43 kDa, 30 kDa

Purification Method:
Protein G purification

CloneNo.:
2B1G12

Recommended Dilutions:
WB 1:5000-1:50000
IHC 1:2000-1:8000
IF/ICC 1:400-1:1600

Applications

Tested Applications:
WB, IHC, IF/ICC, ELISA

Cited Applications:
WB

Species Specificity:
human, mouse, rat, pig

Cited Species:
human, mouse

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : A549 cells, NCI-H1299 cells, HeLa cells, HepG2 cells, pig brain tissue, rat brain tissue, mouse brain

IHC : mouse heart tissue, human colon tissue, mouse skeletal muscle tissue, rat heart tissue, rat skeletal muscle tissue

IF/ICC : HeLa cells, A549 cells

Background Information

Dystroglycan, also known as DAG1 or DG, was originally isolated from skeletal muscle as an integral membrane component of the dystrophin-glycoprotein complex (DGC). In addition to skeletal muscle, dystroglycan is strongly expressed in heart and smooth muscle, as well as many non-muscle tissues including brain and peripheral nerve (PMID: 12556455). The dystroglycan is involved in a number of processes including laminin and basement membrane assembly, sarcolemmal stability, cell survival, peripheral nerve myelination, nodal structure, cell migration, and epithelial polarization. Dystroglycan consists of two subunits (alpha and beta), which are translated from a single mRNA as a propeptide that is proteolytically cleaved into two noncovalently associated proteins (PMID: 16410545). Alpha-dystroglycan is a 156-kDa extracellular peripheral glycoprotein, while beta-dystroglycan is a 43-kDa transmembrane protein (PMID: 9858474). The 43-kDa beta-dystroglycan can be cleaved into a ~30-kDa form (PMID: 14678802; 18458097; 17255331).

Notable Publications

Author	Pubmed ID	Journal	Application
Nicolás Sarute	32719120	Proc Natl Acad Sci U S A	
Samantha Thompson	39484588	bioRxiv	WB

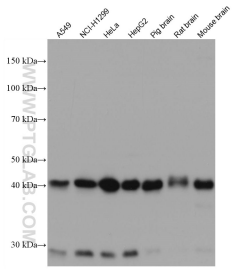
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

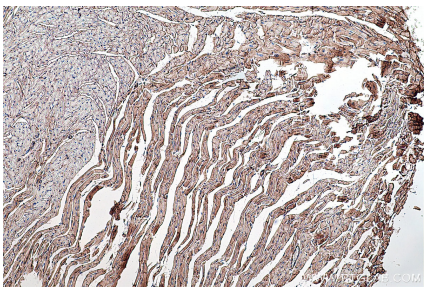
*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

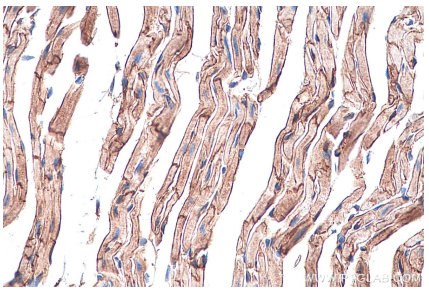
Selected Validation Data



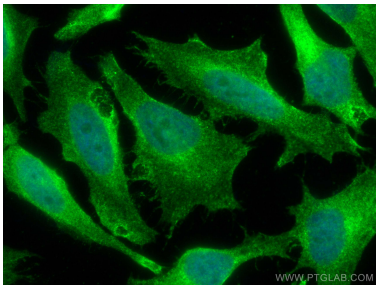
Various lysates were subjected to SDS PAGE followed by western blot with 66735-1-Ig (Dystroglycan antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



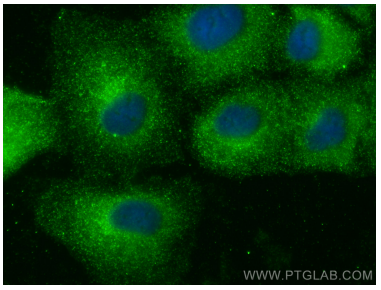
Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 66735-1-Ig (Dystroglycan antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



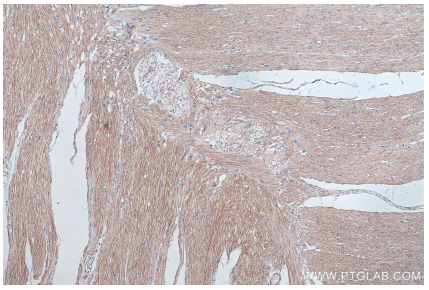
Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 66735-1-Ig (Dystroglycan antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using Dystroglycan antibody (66735-1-Ig, Clone: 2B1G12) at dilution of 1:800 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Immunofluorescent analysis of (-20°C Ethanol) fixed A549 cells using Dystroglycan antibody (66735-1-Ig, Clone: 2B1G12) at dilution of 1:1000 and Multi-rAb CoraLite ® Plus 488-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (RGAM002).



Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 66735-1-Ig (Dystroglycan antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).