

ACTN2 Recombinant monoclonal antibody

Catalog Number: 85857-4-RR

Basic Information

Catalog Number:

85857-4-RR

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG5459

GenBank Accession Number:

BC051770

GeneID (NCBI):

88

UNIPROT ID:

P35609

Full Name:

actinin, alpha 2

Calculated MW:

104 kDa

Observed MW:

103 kDa

Purification Method:

Protein A purification

CloneNo.:

250229F6

Recommended Dilutions:

WB: 1:5000-1:50000

IHC: 1:500-1:2000

IF-P: 1:1000-1:4000

Applications

Tested Applications:

WB, IHC, IF-P, ELISA

Species Specificity:

human, mouse, rat

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 : HepG2 cells, A549 cells, HeLa cells, NIH/3T3 cells, C6 cells

IHC : mouse heart tissue, mouse skeletal muscle tissue

IF-P : mouse heart tissue,

Background Information

Alpha actinin 2 (ACTN2) belongs to the alpha-actinin family and is expressed in both skeletal and cardiac muscles, and functions to anchor myofibrillar actin thin filaments and titin to Z-discs (PMID: 30701273). ACTN2 is an actin-binding protein with multiple roles in different cell types. In nonmuscle cells, the cytoskeletal isoform is found along microfilament bundles and adherens-type junctions, where it is involved in binding actin to the membrane. In contrast, skeletal, cardiac, and smooth muscle isoforms are localized to the Z disc and analogous dense bodies, where they help anchor the myofibrillar actin filaments. Mutations in ACTN2 are associated with hypertrophic cardiomyopathy, as well as dilated cardiomyopathy and endocardial fibroelastosis (PMID: 20022194, 14567970).

Storage

Storage:

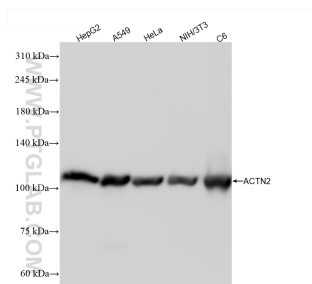
Store at -20°C. Stable for one year after shipment.

Storage Buffer:

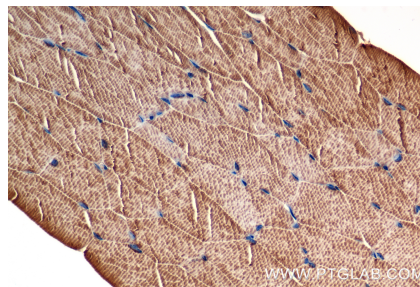
PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

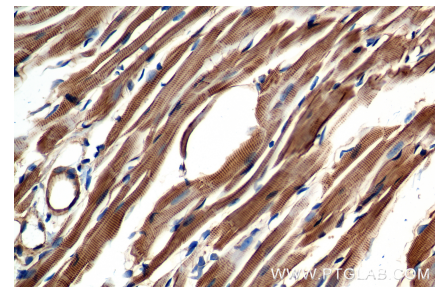
Selected Validation Data



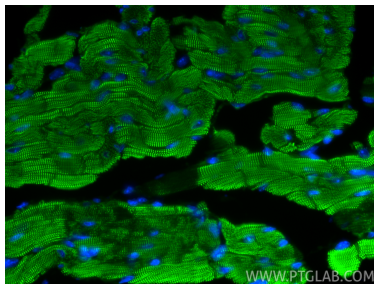
Various lysates were subjected to SDS PAGE followed by western blot with 85857-4-RR (ACTN2 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



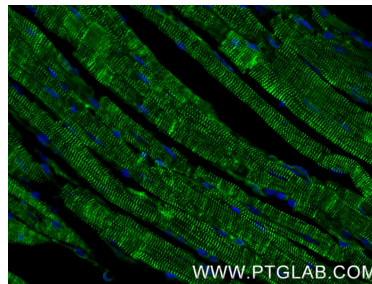
Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue slide using 85857-4-RR (ACTN2 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 85857-4-RR (ACTN2 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse heart tissue using ACTN2 antibody (85857-4-RR, Clone: 250229F6) at dilution of 1:2000 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse heart tissue using ACTN2 antibody (85857-4-RR, Clone: 250229F6) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).