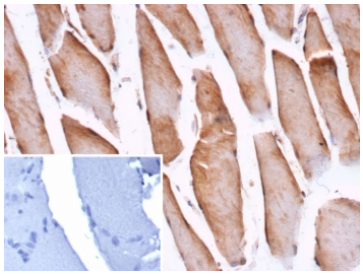
Cofilin 2 Antibody / Muscle Cofilin Antibody [clone CFL2/9963] (V5657)

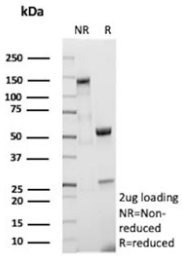
Catalog No.	Formulation	Size
V5657-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5657-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5657SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	CFL2/9963
Purity	Protein G affinity
UniProt	Q9Y281
RRID	AB_3754345
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This Cofilin 2 Antibody / Muscle Cofilin Antibody is available for research use only.



Cofilin 2 Antibody in Human Skeletal Muscle IHC. Immunohistochemistry staining of FFPE human skeletal muscle tissue with Cofilin 2 Antibody / Muscle Cofilin Antibody. HIER was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 min followed by cooling before testing. The inset shows the secondary antibody negative control with PBS used in place of the primary antibody. This Cofilin 2 Antibody demonstrates muscle cofilin localization in human skeletal muscle tissue.



Purified Cofilin 2 Antibody SDS-PAGE. Gel run analysis of purified, BSA-free Cofilin 2 Antibody / Muscle Cofilin Antibody. Analysis of the mouse monoclonal antibody provides confirmation of antibody integrity and purity.

Description

Cofilin 2 Antibody / Muscle Cofilin Antibody detects cofilin-2, an actin-binding protein encoded by the CFL2 gene. Cofilin-2 belongs to the actin-depolymerizing factor (ADF)/cofilin family and is particularly associated with skeletal and cardiac muscle. By regulating actin filament turnover, cofilin-2 contributes to the organization and maintenance of the actin cytoskeleton required for normal muscle structure and contractile function.

Cofilin-2 interacts with both globular actin (G-actin) and filamentous actin (F-actin). Binding to actin filaments can promote filament severing and depolymerization, facilitating the continuous turnover and reorganization of actin networks. Cofilin activity is regulated by phosphorylation and dephosphorylation as well as interactions with other cellular factors, allowing cytoskeletal remodeling to respond to signaling and changes in cellular activity.

Muscle cofilin has an important role in the organization of sarcomeric actin and the development and maintenance of myofibrils. Precise regulation of actin filament dynamics is necessary for formation of the contractile apparatus and preservation of muscle fiber architecture. CFL2 expression is therefore studied in skeletal muscle development, differentiation and function, as well as in research examining mechanisms responsible for maintaining normal muscle cytoskeletal organization.

Disruption of CFL2 function can interfere with actin organization and muscle integrity. Pathogenic variants in CFL2 have been associated with congenital myopathies, including nemaline myopathy, linking abnormal cofilin-2 activity to defects in skeletal muscle structure and function. A Muscle Cofilin Antibody can therefore provide a useful reagent for examining CFL2 expression and localization in studies of muscle development, myofibril organization and inherited muscle disease.

NSJ Bioreagents supplies antibodies for research into cytoskeletal regulation and muscle biology. A Cofilin 2 Antibody can be used to investigate muscle cofilin expression, skeletal muscle organization, actin filament regulation and mechanisms associated with normal and abnormal muscle function.

For additional research on cofilin-2 function and cytoskeletal remodeling, see our Cofilin 2 Antibody / Actin Dynamics Marker page.

Application Notes

Optimal dilution of the Cofilin 2 Antibody / Muscle Cofilin Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 1-166 from human CFL2 protein was used as the immunogen for the Cofilin 2 antibody.

Storage

Aliquot the Cofilin 2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Cofilin 2 antibody, Muscle Cofilin antibody, CFL2 antibody, Cofilin-2 antibody

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