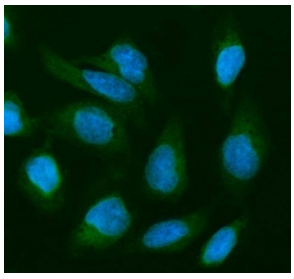
CFL2 Antibody / Actin Depolymerization Factor (R32400)

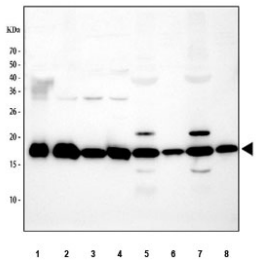
Catalog No.	Formulation	Size
R32400	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

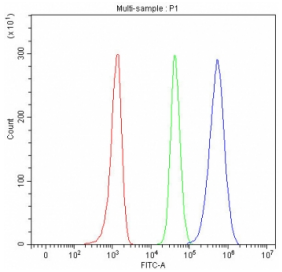
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q9Y281
Localization	Cytoplasmic
Applications	Western Blot : 0.5-1ug/ml Immunofluorescence : 5ug/m Flow Cytometry : 1-3ug/million cells
Limitations	This Cofilin 2 / CFL2 antibody is available for research use only.



CFL2 Antibody in U-2 OS Osteosarcoma Cells IF. Immunofluorescence staining of FFPE human U-2 OS osteosarcoma cells with CFL2 Antibody / Actin Depolymerization Factor (green) and DAPI nuclear stain (blue). HIER was performed by steaming in pH 6 citrate buffer for 20 min. The observed staining demonstrates cofilin-2 localization in human U-2 OS cells and supports investigation of this actin-regulatory protein by IF.



CFL2 Antibody in Human, Rat and Mouse WB. Western blot testing of human, rat and mouse samples with CFL2 Antibody / Actin Depolymerization Factor. Lane 1: human Raji; Lane 2: HUVEC; Lane 3: human HepG2; Lane 4: human HeLa; Lane 5: rat skeletal muscle; Lane 6: rat liver; Lane 7: mouse skeletal muscle; Lane 8: mouse liver. The predicted molecular weight of CFL2 is approximately 19 kDa. This CFL2 Antibody demonstrates detection across human cell lines and mouse and rat tissues.



CFL2 Antibody in Raji B Lymphocytes FACS. Flow cytometry testing of fixed and permeabilized human Raji B lymphocytes with CFL2 Antibody / Actin Depolymerization Factor at 1 ug/million cells following blocking with goat serum. Red represents cells alone, green represents the isotype control and blue represents CFL2 antibody staining. The observed signal demonstrates detection of cofilin-2 in human Raji cells.

Description

CFL2 Antibody / Actin Depolymerization Factor detects cofilin-2, an actin-binding protein encoded by the CFL2 gene. Cofilin-2 belongs to the actin-depolymerizing factor (ADF)/cofilin family, whose members regulate actin filament assembly and disassembly. CFL2 binds both globular actin (G-actin) and filamentous actin (F-actin), enabling it to participate in the continuous remodeling of the actin cytoskeleton required for cellular organization and specialized contractile functions.

Cofilin proteins promote actin turnover by interacting with ADP-rich regions of existing actin filaments. Their activity can induce changes in filament structure that favor severing and depolymerization while generating new filament ends available for subsequent actin assembly. This dynamic process allows cells to reorganize actin networks in response to intracellular and extracellular signals. CFL2 activity is itself regulated through mechanisms including phosphorylation and dephosphorylation, providing a connection between signaling pathways and cytoskeletal organization.

CFL2 is particularly associated with skeletal and cardiac muscle, where precise regulation of actin organization is essential for myofibril structure and contractile function. Disruption of cofilin-2 activity can interfere with normal sarcomeric actin organization and muscle development. Pathogenic variants in CFL2 are associated with nemaline myopathy, supporting an important role for the protein in maintaining normal skeletal muscle architecture and function.

As an actin depolymerization factor, CFL2 is also relevant to broader studies of cytoskeletal remodeling, cell morphology, migration and intracellular organization. This rabbit polyclonal antibody has been evaluated by Western blot, immunofluorescence and flow cytometry and is reactive with human, mouse and rat CFL2. Its complementary cell- and protein-based validation supports investigation of cofilin-2 expression across a variety of experimental systems.

NSJ Bioreagents supplies antibodies for research into cytoskeletal regulation, muscle biology and cellular signaling. A CFL2 Antibody can be used to investigate actin depolymerization, cytoskeletal remodeling, muscle organization and mechanisms associated with cofilin-2 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 CFL2 Antibody / Actin Depolymerization Factor should be determined by the researcher.

Immunogen

Amino acids KDAIKKKFTGIKHEWQVNGLDDIKDRSTLGEKL were used as the immunogen for the Cofilin 2 / CFL2 antibody.

Storage

After reconstitution, the Cofilin 2 / CFL2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

CFL2 antibody, Cofilin 2 antibody, Actin Depolymerization Factor antibody, Muscle Cofilin antibody

Copyright © NSJ Bioreagents. All rights reserved.