

# Profilin-2 (K-16)-R: sc-23681-R

## BACKGROUND

Profilins (Profilin-1, Profilin-2 and Profilin-3) act as nucleotide exchange factors that use ATP to charge Actin, a process that regulates Actin polymerization by subsequently sequestering the Actin monomer. Profilin-2, also known as PFN2 or PFL, is a 140 amino acid protein that is ubiquitously expressed with highest expression in kidney, brain and skeletal muscle. Like other members of the Profilin family, Profilin-2 functions as an Actin monomer-binding protein that influences the structure of the cytoskeleton by regulating Actin polymerization in response to extracellular signals. High levels of Profilin-2 inhibit Actin polymerization, while lower levels enhance Actin polymerization, suggesting that the expression of Profilin-2 is regulated by the need for polymerization within the cell. Two isoforms of Profilin-2 exist due to alternative splicing events.

## CHROMOSOMAL LOCATION

Genetic locus: PFN2 (human) mapping to 3q25.1; Pfn2 (mouse) mapping to 3 D.

## SOURCE

Profilin-2 (K-16)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Profilin-2 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-23681 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

Profilin-2 (K-16)-R is recommended for detection of Profilin-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Profilin-2 (K-16)-R is also recommended for detection of Profilin-2 in additional species, including equine, bovine, porcine and avian.

Suitable for use as control antibody for Profilin-2 siRNA (h): sc-78482, Profilin-2 siRNA (m): sc-152477, Profilin-2 shRNA Plasmid (h): sc-78482-SH, Profilin-2 shRNA Plasmid (m): sc-152477-SH, Profilin-2 shRNA (h) Lentiviral Particles: sc-78482-V and Profilin-2 shRNA (m) Lentiviral Particles: sc-152477-V.

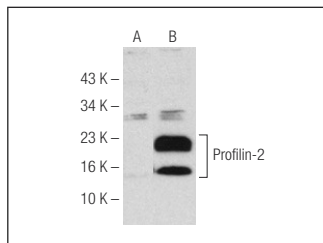
Molecular Weight of Profilin-2: 15 kDa.

Positive Controls: Profilin-2 (h): 293T Lysate: sc-177780 or HeLa whole cell lysate: sc-2200.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Profilin-2 (K-16)-R: sc-23681-R. Western blot analysis of Profilin-2 expression in non-transfected: sc-117752 (A) and human Profilin-2 transfected: sc-177780 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Profilin-2 (4K-6): sc-100955**, our highly recommended monoclonal alternative to Profilin-2 (K-16).