Cofilin 1 (N-terminus) Blocking Peptide

Cat. #	**CX1135**
Size	**50 μg**

Background:
Members of the ADF/cofilin (AC) family are actin-severing proteins that regulate actin remodeling during cellular events such as cell migration, cytokinesis, phagocytosis, endocytosis, axon development, and immune cell activation. In mammals, there are three members of the AC family, muscle-specific cofilin (cofilin 2), non-muscle cofilin (cofilin 1), and ADF. In humans, cofilin 1 and ADF have 72% identity, with the major amino acid differences found in the C-terminal region. Regulation of cofilin activity can occur through serine phosphorylation. Activation of cofilin kinases, LIMK1 or LIMK2, leads to phosphorylation of cofilin at serine 3. This phosphorylation disrupts cofilin binding to actin *in vitro* and *in vivo*. Multiple phosphatases, PP1, PP2A, PP2B, slingshot, and chronophin can dephosphorylate Ser-3 and activate actin binding. Thus, Ser-3 phosphorylation is a major site for the regulation of cofilin activity.

References:
Bamburg, J.R. (1999). Annu Rev Cell Dev Biol. 15:185
Maciver, S.K. & Hussey, P.J. (2002). Genome Biol. 3(5): 3007

Peptide Sequence:
A synthetic peptide corresponding to amino acid residues at the N-terminus of human Cofilin 1. This sequence has 100% homology to similar regions in rat and mouse Cofilin 1, and has 3 amino acid differences from human Cofilin 2.

Buffer and Storage:
Blocking Peptide is supplied in 50μl phosphate-buffered saline and 0.05% sodium azide. Store at –20°C. Stable for 1 year.

Applications:

Antibody Blocking	1 μg/ml[1]
ELISA	10-100 ng/well[2]

End user should determine optimal concentration dependent on the concentration of the antibody.
[1]Recommended for blocking antibody reactivity in Western blot and immunocytochemistry.
[2]Established in 96-well Nunc immunoplates where peptide was bound to plates for 2 hrs in 0.1 M sodium carbonate buffer, pH 8.5.

Specificity:
The peptide is specifically recognized by anti-Cofilin 1 (N-terminus) antibody (CP1131) in ELISA, and is recommended for use in blocking CP1131 reactivity in Western blot and immunocytochemistry.

Related Products:
CP1131 Cofilin 1 (N-terminus) Rabbit Polyclonal
CP1151 Cofilin 1 (Ser-3), phospho-specific Rabbit Polyclonal
CX1155 phospho-Cofilin 1 (Ser-3) Peptide

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