Store at -20°C

#14189

Flightless-I Antibody

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Entrez-Gene ID #2314
UniProt ID #Q13045

New 08/14

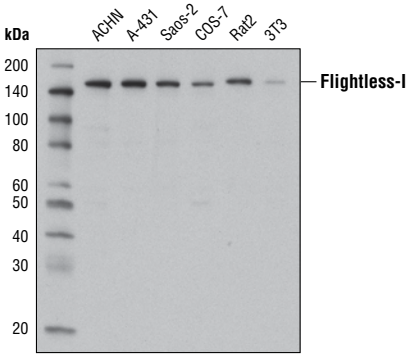
For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M, R, Mk	145 kDa	Rabbit**

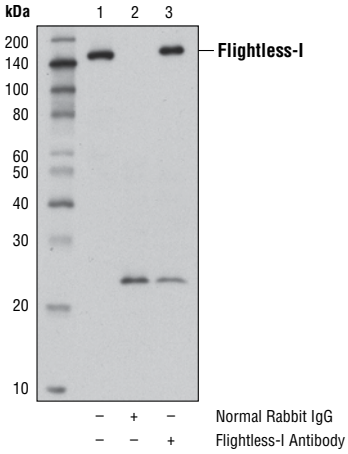
Background: The *flightless-I* (*fliI*) gene was first identified in *Drosophila* mutant screens for genes involved in flight behavior. Homozygous mutant alleles at the *fliI* locus are embryonic lethal, whereas heterozygous mutations yield a "flightless" phenotype resulting from defects in flight muscle fiber development (1). The encoded protein (flightless-I, FLII) is a highly conserved member of the gelsolin superfamily, defined by the presence of C-terminal gelsolin motifs that function as actin-binding domains (2). Genetic knock-out studies in mice and worms confirmed that flightless-I plays a critical and highly conserved role in embryonic development, likely through its effects on actin remodeling of the cytoskeleton (3,4). Postnatally, flightless-I is recognized to play an important role in wound repair (5). Flightless-I protein levels are increased in many wound types, and depletion of flightless-I protein levels has been shown to accelerate wound repair by promoting fibroblast proliferation and epithelial migration (6-8). Studies in animal models suggest that flightless-I may inhibit the wound repair process by modulating TGF-β signaling dynamics in the wound environment (9).

Specificity/Sensitivity: Flightless-I Antibody recognizes endogenous levels of total flightless-I protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human flightless-I protein. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from various cell lines using Flightless-I Antibody.



Immunoprecipitation of Flightless-I protein from ACHN cell extracts, using Normal Rabbit IgG #2729 (lane 2) or Flightless-I Antibody (lane 3). Lane 1 is 10% input. Western blot analysis was performed using Flightless-I Antibody.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:200

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

Background References:

(1) Miklos, G.L. and De Couet, H.G. (1990) *J Neurogenet* 6, 133-51.

(2) Campbell, H.D. et al. (1993) *Proc Natl Acad Sci USA* 90, 11386-90.

(3) Campbell, H.D. et al. (2002) *Mol Cell Biol* 22, 3518-26.

(4) Deng, H. et al. (2007) *Genetics* 177, 847-60.

(5) Kopecki, Z. and Cowin, A.J. (2008) *Int J Biochem Cell Biol* 40, 1415-9.

(6) Cowin, A.J. et al. (2007) *J Pathol* 211, 572-81.

(7) Ruzehaji, N. et al. *Eur J Dermatol* 22, 740-50.

(8) Ruzehaji, N. et al. (2013) *Biomed Res Int* 2013, 389792.

(9) Adams, D.H. et al. (2009) *Br J Dermatol* 161, 326-36.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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