

## FHL-3 (G-14): sc-13412

### BACKGROUND

The four-and-a-half-LIM domain (FHL) proteins include FHL-1 (SLIM1), FHL-2 (SLIM3), FHL-3 (SLIM2) and FHL-4. The signature "half-domain", a single zinc finger domain located in the N-terminal region, differentiates FHLs from other LIM-only proteins, which have numbers of zinc fingers. Specific combinations of FHL proteins elicit selective activation of both CREB and CREM. Skeletal and cardiac muscle express FHL-1 in high levels as compared to the low level of expression in smooth muscle of the colon, small intestine and prostate. FHL-1 localizes to the cytosol of myoblasts, myotubes, and differentiated myocytes. FHL-2 is also located in cardiac and skeletal muscle, as well as in placenta and ovary tissues. FHL-3 is found in skeletal muscle, but absent in cardiac muscle. FHL-4 is expressed exclusively by the seminiferous epithelium of the testis, which suggests that FHL-4 is involved in spermatogenesis. The genetic loci for FHLs vary considerably despite similar amino acid sequences among the FHL group.

### REFERENCES

- Morgan, M.J., et al. 1996. SLIM defines a novel family of LIM-proteins expressed in skeletal muscle. *Biochem. Biophys. Res. Commun.* 225: 632-638.
- Chan, K.K., et al. 1998. Molecular cloning and characterization of FHL-2, a novel LIM domain protein preferentially expressed in human heart. *Gene* 210: 345-350.
- Lee, S.M., et al. 1998. Chromosomal mapping, tissue distribution and cDNA sequence of four-and-a-half LIM domain protein 1 (FHL-1). *Gene* 216: 163-170.
- Lee, S.M., et al. 1998. Chromosomal mapping of a skeletal muscle specific LIM-only protein FHL-3 to the distal end of the short arm of human chromosome 1. *Somat. Cell Mol. Genet.* 24: 197-202.

### CHROMOSOMAL LOCATION

Genetic locus: FHL3 (human) mapping to 1p34.3; Fhl3 (mouse) mapping to 4 D2.2.

### SOURCE

FHL-3 (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FHL-3 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-13412 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

FHL-3 (G-14) is recommended for detection of FHL-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

FHL-3 (G-14) is also recommended for detection of FHL-3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for FHL-3 siRNA (h): sc-37893, FHL-3 siRNA (m): sc-37894, FHL-3 shRNA Plasmid (h): sc-37893-SH, FHL-3 shRNA Plasmid (m): sc-37894-SH, FHL-3 shRNA (h) Lentiviral Particles: sc-37893-V and FHL-3 shRNA (m) Lentiviral Particles: sc-37894-V.

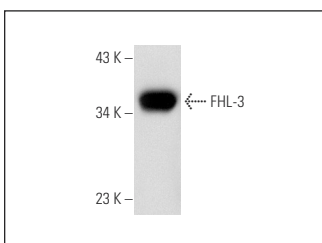
Molecular Weight of FHL-3: 31 kDa.

Positive Controls: Sol8 nuclear extract: sc-2157, mouse heart extract: sc-2254 or Sol8 cell lysate: sc-2249.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### DATA



FHL-3 (G-14): sc-13412. Western blot analysis of FHL-3 expression in Sol8 whole cell lysate.

### RESEARCH USE

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



Try **FHL-3 (B-2): sc-166917**, our highly recommended monoclonal alternative to FHL-3 (G-14).