

FHL-2 (G-14): sc-23179

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

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- 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, 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.
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- Morgan, M.J., et al. 1999. The fourth member of the FHL family of LIM proteins is expressed exclusively in the testis. *Biochem. Biophys. Res. Commun.* 255: 251-255.
- Greene, W.K., et al. 1999. Genomic structure, tissue expression and chromosomal location of the LIM-only gene, SLIM1. *Gene* 232: 203-207.

CHROMOSOMAL LOCATION

Genetic locus: FHL2 (human) mapping to 2q12.1; Fhl2 (mouse) mapping to 1 B.

SOURCE

FHL-2 (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FHL-2 of mouse 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-23179 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FHL-2 (G-14) is recommended for detection of FHL-2 of mouse, rat and, to a lesser extent, 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).

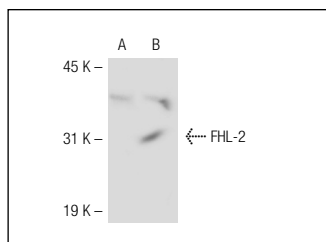
FHL-2 (G-14) is also recommended for detection of FHL-2 in additional species, including canine, porcine and avian.

Suitable for use as control antibody for FHL-2 siRNA (h): sc-37891, FHL-2 siRNA (m): sc-37892, FHL-2 shRNA Plasmid (h): sc-37891-SH, FHL-2 shRNA Plasmid (m): sc-37892-SH, FHL-2 shRNA (h) Lentiviral Particles: sc-37891-V and FHL-2 shRNA (m) Lentiviral Particles: sc-37892-V.

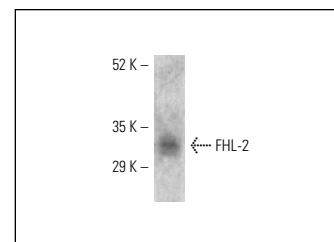
Molecular Weight of FHL-2: 32 kDa.

Positive Controls: mouse heart tissue extract: sc-2254, FHL-2 (m): 293T Lysate: sc-120254 or Sol8 nuclear extract: sc-2157.

DATA



FHL-2 (G-14): sc-23179. Western blot analysis of FHL-2 expression in non-transfected: sc-117752 (A) and mouse FHL-2 transfected: sc-120254 (B) 293T whole cell lysates.



FHL-2 (G-14): sc-23179. Western blot analysis of FHL-2 expression in mouse heart tissue extract.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **FHL-2 (F-1): sc-393514** or **FHL-2 (E-8): sc-398866**, our highly recommended monoclonal alternatives to FHL-2 (G-14).