

# FHL-1 (D-25): sc-133580

## 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 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.

## CHROMOSOMAL LOCATION

Genetic locus: FHL1 (human) mapping to Xq26.3; Fhl1 (mouse) mapping to X A5.

## SOURCE

FHL-1 (D-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic FHL-1 peptide of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## 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.

## APPLICATIONS

FHL-1 (D-25) is recommended for detection of FHL-1 of mouse, rat, human and canine 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FHL-1 siRNA (h): sc-37889, FHL-1 siRNA (m): sc-37890, FHL-1 shRNA Plasmid (h): sc-37889-SH, FHL-1 shRNA Plasmid (m): sc-37890-SH, FHL-1 shRNA (h) Lentiviral Particles: sc-37889-V and FHL-1 shRNA (m) Lentiviral Particles: sc-37890-V.

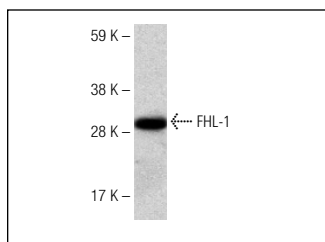
Molecular Weight of FHL-1 isoforms B/A/C: 36/32/22 kDa.

Positive Controls: human fetal muscle tissue extract, mouse testis extract: sc-2405 or RAW 264.7 whole cell lysate: sc-2211.

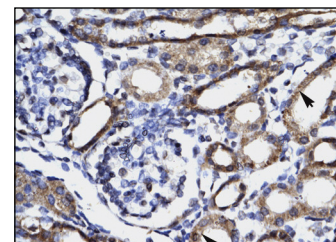
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



FHL-1 (D-25): sc-133580. Western blot analysis of FHL-1 expression in human fetal muscle tissue extract.



FHL-1 (D-25): sc-133580. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human kidney tissue showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Rahimov, F., et al. 2011. Gene expression profiling of skeletal muscles treated with a soluble activin type IIB receptor. *Physiol. Genomics* 43: 398-407.

## PROTOCOLS

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



Try **FHL-1 (H-4): sc-374246** or **FHL-1 (L9-42): sc-101046**, our highly recommended monoclonal alternatives to FHL-1 (D-25).