

# FANCL (H-197): sc-66887

## BACKGROUND

Defects in *FANCL* are a cause of Fanconi anemia. Fanconi anemia (FA) is an autosomal recessive disorder characterized by bone marrow failure, birth defects and chromosomal instability. At the cellular level, FA is characterized by spontaneous chromosomal breakage and a unique hypersensitivity to DNA cross-linking agents. At least eight complementation groups (A-G) have been identified and 6 FA genes (for subtypes A, C, D2, E, F and G) have been cloned. Phosphorylation of FANCL (Fanconi anemia complementation group) proteins is thought to be important for the function of the FA pathway. FA proteins cooperate in a common pathway, culminating in the monoubiquitination of FANCD2 protein and colocalization of FANCD2 and BRCA1 proteins in nuclear foci. *FANCL* is a ligase protein mediating the ubiquitination of FANCD2, a key step in the DNA damage pathway. *FANCL* may be required for proper primordial germ cell proliferation in the embryonic stage.

## REFERENCES

- Meetei, A.R., et al. 2003. A novel ubiquitin ligase is deficient in Fanconi anemia. *Nat. Genet.* 35: 165-170.
- Kutler, D.I., et al. 2004. Fanconi anemia in Ashkenazi Jews. *Fam. Cancer* 3: 241-248.

## CHROMOSOMAL LOCATION

Genetic locus: *FANCL* (human) mapping to 2p16.1; *Fancl* (mouse) mapping to 11 A3.3.

## SOURCE

FANCL (H-300) is a rabbit polyclonal antibody raised against amino acids 76-375 mapping at the C-terminus of *FANCL* 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.

## APPLICATIONS

FANCL (H-197) is recommended for detection of *FANCL* 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), 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).

FANCL (H-197) is also recommended for detection of *FANCL* in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for *FANCL* siRNA (h): sc-45661, *FANCL* siRNA (m): sc-45662, *FANCL* shRNA Plasmid (h): sc-45661-SH, *FANCL* shRNA Plasmid (m): sc-45662-SH, *FANCL* shRNA (h) Lentiviral Particles: sc-45661-V and *FANCL* shRNA (m) Lentiviral Particles: sc-45662-V.

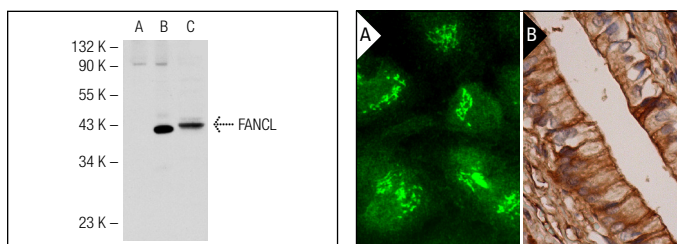
Molecular Weight of *FANCL*: 43 kDa.

Positive Controls: *FANCL* (h2): 293T Lysate: sc-117142 or Hep G2 cell lysate: sc-2227.

## 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



FANCL (H-197): sc-66887. Western blot analysis of *FANCL* expression in non-transfected 293T: sc-117752 (A), human *FANCL* transfected 293T: sc-117142 (B) and Hep G2 (C) whole cell lysates.

FANCL (H-197): sc-66887. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear and cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic and membrane staining of glandular cells (B).

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **FANCL (C-4): sc-137076** or **FANCL (B-11): sc-137067**, our highly recommended monoclonal alternatives to *FANCL* (H-197).