

FANCF (h): 293T Lysate: sc-112398

BACKGROUND

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 six FA genes (for subtypes A, C, D2, E, F and G) have been cloned. The FA proteins lack sequence homologies or motifs that could point to a molecular function. Phosphorylation of FANCF (Fanconi anemia complementation group) proteins is thought to be important for the function of the FA pathway. FA proteins are encoded by six cloned FA genes (FANCA, FANCC, FANCD2, FANCE, FANCF and FANCG) and cooperate in a common pathway, culminating in the monoubiquitination of the FANCD2 protein and co-localization of FANCD2 and BRCA1 proteins in nuclear foci. FANCF protein is required for FANCD2 activation and appears to stabilize other subunits of the complex. The human FANCF gene maps to chromosome 11p14.3 and encodes a nuclear protein with homology to the prokaryotic RNA-binding protein ROM.

REFERENCES

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3. Wilson, J.B., et al. 2001. The Chinese hamster FANCG/XRCC9 mutant NM3 fails to express the monoubiquitinated form of the FANCD2 protein, is hypersensitive to a range of DNA damaging agents and exhibits a normal level of spontaneous sister chromatid exchange. *Carcinogenesis* 22: 1939-1946.
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CHROMOSOMAL LOCATION

Genetic locus: FANCF (human) mapping to 11p14.3.

PRODUCT

FANCF (h): 293T Lysate represents a lysate of human FANCF transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

FANCF (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive FANCF antibodies. Recommended use: 10-20 µl per lane.

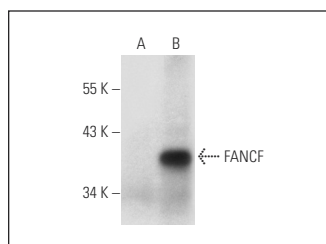
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

FANCF (G-4): sc-271397 is recommended as a positive control antibody for Western Blot analysis of enhanced human FANCF expression in FANCF transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



FANCF (G-4): sc-271397. Western blot analysis of FANCF expression in non-transfected: sc-117752 (A) and human FANCF transfected: sc-112398 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.