SANTA CRUZ BIOTECHNOLOGY, INC.

FAAP100 (G-10): sc-514598

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

FAAP100 (fanconi anemia-associated protein of 100 kDa), also known as C17orf70, is an 881 amino acid protein that belongs to the multisubunit fanconi anemia (FA) core complex in conjunction with FANCA, FANCB, FANCC, FANCE, FANCF, FANCG, FANCL/PHF9, FANCM and FAAP24 This complex functions in fanconi anemia-associated DNA damage response, with FAAP100 playing a major role in core complex stability and FANCD2 monoubiquitination. FAAP100 localizes to the nucleus and forms a complex with FANCB and FANCL. When repressed, FAAP100 induces chromosomal instability and hypersensitivity to DNA cross-linking agents. Existing as three alternatively spliced isoforms, the gene encoding FAAP100 maps to human chromosome 17q25.3.

REFERENCES

1. Meetei, A.R., et al. 2003. A multiprotein nuclear complex connects Fanconi anemia and Bloom syndrome. Mol. Cell. Biol. 23: 3417-3426.
2. Zody, M.C., et al. 2006. DNA sequence of human chromosome 17 and analysis of rearrangement in the human lineage. Nature 440: 1045-1049.
3. Ling, C., et al. 2007. FAAP100 is essential for activation of the Fanconi anemia-associated DNA damage response pathway. EMBO J. 26: 2104-2114.
4. Ali, A.M., et al. 2009. Identification and characterization of mutations in FANCL gene: a second case of Fanconi anemia belonging to FA-L complementation group. Hum. Mutat. 30: E761-E770.
5. Ali, A.M., et al. 2009. FANCM-FAAP24 and FANCJ: FA proteins that metabolize DNA. Mutat. Res. 668: 20-26.
6. Thompson, L.H. and Hinz, J.M. 2009. Cellular and molecular consequences of defective Fanconi anemia proteins in replication-coupled DNA repair: mechanistic insights. Mutat. Res. 668: 54-72.

CHROMOSOMAL LOCATION

Genetic locus: C17orf70 (human) mapping to 17q25.3.

SOURCE

FAAP100 (G-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 676-705 within an internal region of FAAP100 of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

FAAP100 (G-10) is recommended for detection of FAAP100 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for FAAP100 siRNA (h): sc-94167, FAAP100 shRNA Plasmid (h): sc-94167-SH and FAAP100 shRNA (h) Lentiviral Particles: sc-94167-V.

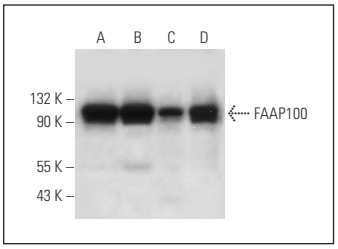
Molecular Weight of FAAP100: 100 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Hep G2 cell lysate: sc-2227 or NCI-H929 whole cell lysate: sc-364786.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



FAAP100 (G-10): sc-514598. Western blot analysis of FAAP100 expression in K-562 (**A**), Hep G2 (**B**), HL-60 (**C**) and NCI-H929 (**D**) whole cell lysates.

RESEARCH USE

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