

# FAAP24 (N-14): sc-167769

## BACKGROUND

FAAP24 (fanconi anemia-associated protein of 24 kDa), also known as C19orf40, is a 215 amino acid member of the fanconi anemia (FA) core complex. Members of this complex include FANCA, FANCB, FANCC, FANCE, FANCF, FANCG, FANCL/PHF9, FANCM and FAAP100, and are essential for fanconi anemia-associated DNA damage response. FAAP24 plays an important role in this complex by regulating monoubiquitylation of FANCD2 upon DNA damage. Forming a complex with FANCM, FAAP24 and FANCM function independently of the FA core complex, and are required for chromatin association and activation of DNA damage checkpoints. When repressed, FAAP24 induces chromosomal instability and hypersensitivity to DNA cross-linking agents. Localizing to the nucleus, FAAP24 contains a C-terminal region which is distantly related to the DNA-binding domain 2 present in RuvA.

## REFERENCES

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2. Niedernhofer, L.J. 2007. The Fanconi anemia signalosome anchor. *Mol. Cell* 25: 487-490.
3. Ciccia, A., et al. 2008. Structural and functional relationships of the XPF/MUS81 family of proteins. *Annu. Rev. Biochem.* 77: 259-287.
4. Kim, J.M., et al. 2008. Cell cycle-dependent chromatin loading of the Fanconi anemia core complex by FANCM/FAAP24. *Blood* 111: 5215-5222.
5. Collis, S.J., et al. 2008. FANCM and FAAP24 function in ATR-mediated checkpoint signaling independently of the Fanconi anemia core complex. *Mol. Cell* 32: 313-324.
6. Horejsí, Z., et al. 2009. FANCM-FAAP24 and HCLK2: roles in ATR signalling and the Fanconi anemia pathway. *Cell Cycle* 8: 1133-1137.
7. 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.
8. Ali, A.M., et al. 2009. FANCM-FAAP24 and FANCL: FA proteins that metabolize DNA. *Mutat. Res.* 668: 20-26.

## CHROMOSOMAL LOCATION

Genetic locus: C19orf40 (human) mapping to 19q13.11; C230052112Rik (mouse) mapping to 7 B2.

## SOURCE

FAAP24 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of FAAP24 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.

Blocking peptide available for competition studies, sc-167769 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

FAAP24 (N-14) is recommended for detection of C230052112Rik of mouse origin and FAAP24 of 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); non cross-reactive with FAAP100.

FAAP24 (N-14) is also recommended for detection of FAAP24 in additional species, including porcine.

Suitable for use as control antibody for FAAP24 siRNA (h): sc-97198, C230052112Rik siRNA (m): sc-141882, FAAP24 shRNA Plasmid (h): sc-97198-SH, C230052112Rik shRNA Plasmid (m): sc-141882-SH, FAAP24 shRNA (h) Lentiviral Particles: sc-97198-V and C230052112Rik shRNA (m) Lentiviral Particles: sc-141882-V.

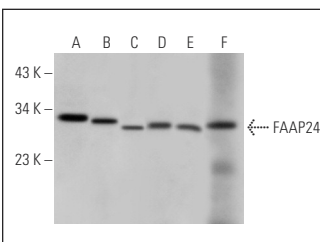
Molecular Weight of FAAP24: 24 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HEK293 whole cell lysate: sc-45136 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 donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



FAAP24 (N-14): sc-167769. Western blot analysis of FAAP24 expression in Jurkat (A), HEK293 (B), RAW 264.7 (C), K-562 (D) and PC-12 (E) whole cell lysates and mouse heart tissue extract (F).

## 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.