SANTA CRUZ BIOTECHNOLOGY, INC.

FAAP100 siRNA (h): sc-94167

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

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CHROMOSOMAL LOCATION

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

PRODUCT

FAAP100 siRNA (h) is a pool of 2 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see FAAP100 shRNA Plasmid (h): sc-94167-SH and FAAP100 shRNA (h) Lentiviral Particles: sc-94167-V as alternate gene silencing products.

For independent verification of FAAP100 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-94167A and sc-94167B.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

FAAP100 siRNA (h) is recommended for the inhibition of FAAP100 expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

GENE EXPRESSION MONITORING

FAAP100 (G-10): sc-514598 is recommended as a control antibody for monitoring of FAAP100 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor FAAP100 gene expression knockdown using RT-PCR Primer: FAAP100 (h)-PR: sc-94167-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

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.