

UVSSA (S-12): sc-138375

BACKGROUND

UVSSA (UV-stimulated scaffold protein A), also known as KIAA1530, is a 709 amino acid chromosomal protein belonging to the UVSSA family and containing one coiled coil domain and one VHS-like region. Defects in the UVSSA gene result in UV-sensitive syndrome 3 (UVSS3), an autosomal recessive disorder characterized by cutaneous photosensitivity and slight dyspigmentation without skin carcinoma. UVSSA interacts with the machinery for transcription-coupled nucleotide-excision repair (TC-NER) which allows RNA polymerase II blocking lesions to be removed from the transcribed strand of active genes. UVSSA also stabilizes the ERCC6 (excision repair cross-complementation group 6) complex, and facilitates ubiquitination of the elongating form of RNA polymerase II (RNA pol II) stalled at DNA damage sites.

REFERENCES

1. Yashin, A.I., et al. 2010. Joint influence of small-effect genetic variants on human longevity. *Aging* 2: 612-620.
2. Fei, J., et al. 2012. KIAA1530 protein is recruited by Cockayne syndrome complementation group protein A (CSA) to participate in transcription-coupled repair (TCR). *J. Biol. Chem.* 287: 35118-35126.
3. Nakazawa, Y., et al. 2012. Mutations in UVSSA cause UV-sensitive syndrome and impair RNA polymerase II processing in transcription-coupled nucleotide-excision repair. *Nat. Genet.* 44: 586-592.
4. Zhang, X., et al. 2012. Mutations in UVSSA cause UV-sensitive syndrome and destabilize ERCC6 in transcription-coupled DNA repair. *Nat. Genet.* 44: 593-597.
5. Schwertman, P., et al. 2012. UV-sensitive syndrome protein UVSSA recruits USP7 to regulate transcription-coupled repair. *Nat. Genet.* 44: 598-602.

CHROMOSOMAL LOCATION

Genetic locus: UVSSA (human) mapping to 4p16.3; *Uvssa* (mouse) mapping to 5 B1.

SOURCE

UVSSA (S-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of UVSSA of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138375 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

UVSSA (S-12) is recommended for detection of UVSSA of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

UVSSA (S-12) is also recommended for detection of UVSSA in additional species, including canine.

Suitable for use as control antibody for UVSSA siRNA (h): sc-89002, UVSSA siRNA (m): sc-149456, UVSSA shRNA Plasmid (h): sc-89002-SH, UVSSA shRNA Plasmid (m): sc-149456-SH, UVSSA shRNA (h) Lentiviral Particles: sc-89002-V and UVSSA shRNA (m) Lentiviral Particles: sc-149456-V.

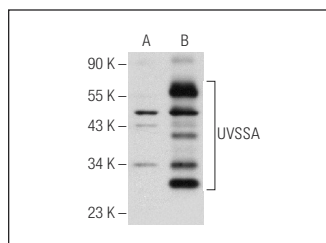
Molecular Weight of UVSSA isoforms: 81/30 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233, Y79 cell lysate: sc-2240 or UVSSA (h): 293T Lysate: sc-111962.

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.

DATA



UVSSA (S-12): sc-138375. Western blot analysis of UVSSA expression in non-transfected: sc-117752 (A) and human UVSSA transfected: sc-111962 (B) 293T whole cell lysates.

PROTOCOLS

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