SANTA CRUZ BIOTECHNOLOGY, INC.

UNKL (F-8): sc-398716

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

UNKL (unkempt homolog *(Drosophila)*-like), also known as RING finger protein unkempt-like, putative E3 ubiquitin-protein ligase UNKL, ZC3H5L or ZC3HDC5L, is a 680 amino acid protein that exists as six alternatively spliced isoforms belonging to the unkempt family. UNKL isoform 4, which interacts with SMARCD2, primarily localizes to the cytoplasm but also has the ability to shuttle itself to the nucleus. UNKL is thought to play a role in protein ubiquitination and contains four C3H1-type zinc fingers and one RING-type zinc finger. The gene encoding UNKL maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

1. Baraitser, M. and Preece, M.A. 1983. The Rubinstein-Taybi syndrome: occurrence in two sets of identical twins. Clin. Genet. 23: 318-320.
2. Breuning, M.H., et al. 1993. Rubinstein-Taybi syndrome caused by submicroscopic deletions within 16p13.3. Am. J. Hum. Genet. 52: 249-254.
3. Bomont, P., et al. 2000. The gene encoding gigaxonin, a new member of the cytoskeletal BTB/Kelch repeat family, is mutated in giant axonal neuropathy. Nat. Genet. 26: 370-374.
4. Daniels, R.J., et al. 2001. Sequence, structure and pathology of the fully annotated terminal 2 Mb of the short arm of human chromosome 16. Hum. Mol. Genet. 10: 339-352.
5. Kuhlenbäumer, G., et al. 2002. Giant axonal neuropathy (GAN): case report and two novel mutations in the gigaxonin gene. Neurology 58: 1273-1276.

CHROMOSOMAL LOCATION

Genetic locus: UNKL (human) mapping to 16p13.3; Unkl (mouse) mapping to 17 A3.3.

SOURCE

UNKL (F-8) is a mouse monoclonal antibody raised against amino acids 586-680 mapping at the C-terminus of UNKL of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

UNKL (F-8) is available conjugated to agarose (sc-398716 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398716 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398716 PE), fluorescein (sc-398716 FITC), Alexa Fluor® 488 (sc-398716 AF488), Alexa Fluor® 546 (sc-398716 AF546), Alexa Fluor® 594 (sc-398716 AF594) or Alexa Fluor® 647 (sc-398716 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398716 AF680) or Alexa Fluor® 790 (sc-398716 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

UNKL (F-8) is recommended for detection of UNKL of mouse, rat and 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 UNKL siRNA (h): sc-92989, UNKL siRNA (m): sc-154927, UNKL shRNA Plasmid (h): sc-92989-SH, UNKL shRNA Plasmid (m): sc-154927-SH, UNKL shRNA (h) Lentiviral Particles: sc-92989-V and UNKL shRNA (m) Lentiviral Particles: sc-154927-V.

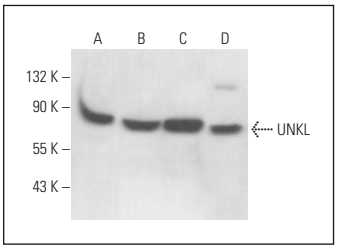
Molecular Weight of UNKL isoforms: 74/25/20/25/32/82 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, JAR cell lysate: sc-2276 or JEG-3 whole cell lysate: sc-364255.

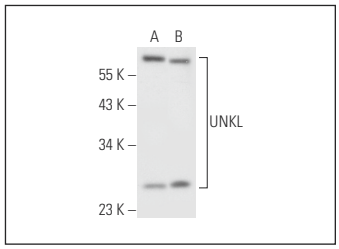
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



UNKL (F-8): sc-398716. Western blot analysis of UNKL expression in JAR (**A**), NAMALWA (**B**), K-562 (**C**) and TK-1 (**D**) whole cell lysates.



UNKL (F-8): sc-398716. Western blot analysis of UNKL expression in JAR (**A**) and JEG-3 (**B**) whole cell lysates.

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.

PROTOCOLS

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