Uev1A/Kua (N-18): sc-47558

BACKGROUND

Uev1A, also designated CROC1, Uev1 or UBE2V1 (ubiquitin-conjugating enzyme E2 variant 1), shows sequence similarity to other ubiquitin-conjugating enzymes, but lacks the conserved cysteine residue critical for their catalytic activity. Therefore, Uev1A does not have ubiquitin-conjugating activity, but it can regulate noncanonical elongation of ubiquitin chains. Studies on recombinant Uev1A show that it localizes to the nucleus, excluding the nucleolar regions. Uev1A functions with TRAF6, a RING domain protein, to catalyze the synthesis of unique polyubiquitin chains linked through lysine-63 of ubiquitin. The gene encoding Uev1A maps to human chromosome 20q13.13. In humans, the Uev1A gene is adjacent to the Kua gene. These genes are either expressed as separate transcripts encoding independent Kua and UEV1 proteins or as a hybrid Kua-UEV transcript, therefore encoding a two-domain protein. Kua belongs to a class of conserved proteins with juxtamembrane histidine-rich motifs.

REFERENCES

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3. Hofmann, R.M. and Pickart, C.M. 1999. Noncanonical MMS2-encoded ubiquitin-conjugating enzyme functions in assembly of novel polyubiquitin chains for DNA repair. Cell 96: 645-653.

4. Deng, L., Wang, C., Spencer, E., Yang, L., Braun, A., You, J., Slaughter, C., Pickart, C. and Chen, Z.J. 2000. Activation of the IκB complex by TRAF6 requires a dimeric ubiquitin-conjugatng enzyme complex and a unique polyubiquitin chain. Cell 103: 351-361.

5. LocusLink Report (LocusID: 602995). http://www.ncbi.nlm.nih.gov/Locuslink.

CHROMOSOMAL LOCATION

Genetic locus: TMEM189/TMEM189-UBE2V1/UBE2V1 (human) mapping to 20q13.13.

SOURCE

Uev1A/Kua (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Uev1A 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-47558 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Uev1A/Kua (N-18) is recommended for detection of Uev1A isoform 1 and Kua of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); also recommended for detection of Kua-Uev.

Uev1A/Kua (N-18) is also recommended for detection of Uev1A isoform 1 and Kua in additional species, including equine, canine and avian.

Molecular Weight of Uev1A: 26 kDa.

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) 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.

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 or our catalog for detailed protocols and support products.