

OTUD2 (Y-20): sc-79663

BACKGROUND

OTUD2 (OTU domain-containing protein 2), also known as DUBA8, PRO0907 or YOD1, is a 348 amino acid protein belonging to the OTU (ovarian tumor) domain-containing family. Containing a C₂H₂-type zinc finger and an OTU domain, OTUD2 is a hydrolase that can remove conjugated ubiquitin from proteins. The gene encoding OTUD2 is located on human chromosome 1, which is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. There are approximately 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene which encodes Lamin A. When defective, the LMNA gene product can build up in the nucleus and cause characteristic nuclear blebs. The mechanism of rapidly enhanced aging is unclear and is a topic of continuing exploration. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1. A breakpoint has been identified in 1q which disrupts the DISC1 gene and is linked to schizophrenia. Aberrations in chromosome 1 are found in a variety of cancers including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

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4. Hennah, W., et al. 2006. Genes and schizophrenia: beyond schizophrenia: the role of DISC1 in major mental illness. *Schizophr. Bull.* 32: 409-416.
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CHROMOSOMAL LOCATION

Genetic locus: YOD1 (human) mapping to 1q32.2; Yod1 (mouse) mapping to 1 E4.

SOURCE

OTUD2 (Y-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of OTUD2 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-79663 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OTUD2 (Y-20) is recommended for detection of OTUD2 of mouse, rat and 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).

OTUD2 (Y-20) is also recommended for detection of OTUD2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for OTUD2 siRNA (h): sc-76018, OTUD2 siRNA (m): sc-76019, OTUD2 shRNA Plasmid (h): sc-76018-SH, OTUD2 shRNA Plasmid (m): sc-76019-SH, OTUD2 shRNA (h) Lentiviral Particles: sc-76018-V and OTUD2 shRNA (m) Lentiviral Particles: sc-76019-V.

Molecular Weight of OTUD2: 38 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.