

OTULIN (F-14): sc-162789

BACKGROUND

OTULIN (OTU deubiquitinase with linear linkage specificity), also known as FAM105B, is a 352 amino acid deubiquitinase that removes polyubiquitin chains and regulates angiogenesis and the innate immune response. OTULIN is required during angiogenesis, neuronal development and craniofacial development and is a negative regulator of NF κ B. The gene encoding OTULIN maps to human chromosome 5, which contains 181 million base pairs encoding around 1,000 genes and makes up about 6% of genomic DNA. It is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5 associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome. Deletion of 5q or chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

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2. Aretz, S., et al. 2007. Somatic APC mosaicism: a frequent cause of familial adenomatous polyposis (FAP). *Hum. Mutat.* 28: 985-992.
3. Cleaver, J.E., et al. 2007. Cockayne syndrome exhibits dysregulation of p21 and other gene products that may be independent of transcription-coupled repair. *Neuroscience* 145: 1300-1308.
4. Du, H.Y., et al. 2007. Telomerase reverse transcriptase haploinsufficiency and telomere length in individuals with 5p-syndrome. *Aging Cell* 6: 689-697.
5. Makrantonaki, E. et al. 2007. Molecular mechanisms of skin aging: state of the art. *Ann. N.Y. Acad. Sci.* 1119: 40-50.
6. Keusekotten, K., et al. 2013. OTULIN antagonizes LUBAC signaling by specifically hydrolyzing Met1-linked polyubiquitin. *Cell* 153: 1312-1326.
7. Mevissen, T.E., et al. 2013. OTU deubiquitinases reveal mechanisms of linkage specificity and enable ubiquitin chain restriction analysis. *Cell* 154: 169-184.

CHROMOSOMAL LOCATION

Genetic locus: OTULIN (human) mapping to 5p15.2; Otulin (mouse) mapping to 15 B1.

SOURCE

OTULIN (F-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of OTULIN of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-162789 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OTULIN (F-14) is recommended for detection of OTULIN of mouse 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).

OTULIN (F-14) is also recommended for detection of OTULIN in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for OTULIN siRNA (h): sc-91772, OTULIN siRNA (m): sc-141659, OTULIN shRNA Plasmid (h): sc-91772-SH, OTULIN shRNA Plasmid (m): sc-141659-SH, OTULIN shRNA (h) Lentiviral Particles: sc-91772-V and OTULIN shRNA (m) Lentiviral Particles: sc-141659-V.

Molecular Weight of OTULIN: 40 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.