

ULK2 (E-19): sc-10907

BACKGROUND

ULK1 and ULK2 (for UNC-51-like kinase) encode similar amino-terminal serine/threonine kinase domains, a proline/serine-rich (PS) domain, and a species-conserved carboxyl-terminal domain. Both share homology with the UNC-51 kinase from *Caenorhabditis elegans* and the APG1 kinase in yeast, which are involved in axonal extension and growth, and autophagy, respectively. ULK1 maps to human chromosome 12q24.33 and is ubiquitously expressed. ULK2, also widely expressed, maps to mouse chromosome 11 B2 and is expected to have a similar molecular weight as ULK1 in human. ULK1 and ULK2 are thought to autophosphorylate the PS domain *in vitro*, and the significant homology among vertebrates suggest that ULK1 and ULK2 are involved in the regulation of fundamental biological processes.

REFERENCES

- Ogura, K., et al. 1994. *Caenorhabditis elegans* unc-51 gene required for axonal elongation encodes a novel serine/threonine kinase. *Genes Dev.* 8: 2389-2400.
- Matsuura, A., et al. 1997. *apg1p*, a novel protein kinase required for the autophagic process in *Saccharomyces cerevisiae*. *Gene* 192: 245-250.
- Kuroyanagi, H., et al. 1998. Human ULK1, a novel serine/ threonine kinase related to UNC-51 kinase of *Caenorhabditis elegans*: cDNA cloning, expression, and chromosomal assignment. *Genomics* 51: 76-85.
- Yan, J., et al. 1998. Identification of mouse ULK1, a novel protein kinase structurally related to *C. elegans* UNC-51. *Biochem. Biophys. Res. Commun.* 246: 222-227.
- Yan, J., et al. 1999. Mouse ULK2, a novel member of the UNC-51-like protein kinases: unique features of functional domains. *Oncogene* 18: 5850-5859.
- Tomoda, T., et al. 1999. A mouse serine/threonine kinase homologous to *C. elegans* UNC51 functions in parallel fiber formation of cerebellar granule neurons. *Neuron* 24: 833-846.

CHROMOSOMAL LOCATION

Genetic locus: ULK2 (human) mapping to 17p11.2; Ulk2 (mouse) mapping to 11 B2.

SOURCE

ULK2 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ULK2 of mouse 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-10907 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.

APPLICATIONS

ULK2 (E-19) is recommended for detection of ULK2 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

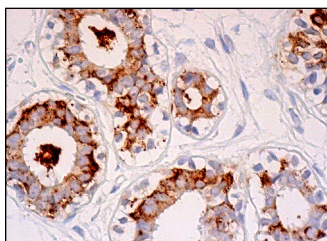
ULK2 (E-19) is also recommended for detection of ULK2 in additional species, including porcine.

Suitable for use as control antibody for ULK2 siRNA (h): sc-44183, ULK2 siRNA (m): sc-154914, ULK2 shRNA Plasmid (h): sc-44183-SH, ULK2 shRNA Plasmid (m): sc-154914-SH, ULK2 shRNA (h) Lentiviral Particles: sc-44183-V and ULK2 shRNA (m) Lentiviral Particles: sc-154914-V.

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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



ULK2 (E-19): sc-10907. Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tissue showing cytoplasmic staining of glandular cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
Satisfaction
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Try **ULK2 (2A12): sc-293453**, our highly recommended monoclonal alternative to ULK2 (E-19).