

TTK (C-19): sc-540



The Power to Question

BACKGROUND

Progression of cells through the cell cycle is regulated by variations in the levels and activities of a series of protein kinases, as well as by oscillation in the levels of their regulatory subunits (i.e. cyclins). The full length sequence for a unique protein kinase of human origin, designated TTK, was cloned by screening a T cell expression library with anti-phosphotyrosine antibodies. Similarly, the mouse homolog of TTK was isolated from an embryonal carcinoma (EC) cell line by expression cloning. TTK/Esk are novel members of the serine/threonine/tyrosine family of protein kinases and are expressed in a broad range of proliferating human cells and tissues. TTK-Esk expression is reduced or absent in resting cells and in cells with a low proliferative index. When cells are induced to enter the cell cycle, levels of TTK mRNA, protein and kinase activity increase at the G₁/S phase of the cell cycle and peak in the G₂/M phase, suggesting that TTK/Esk may function as cell cycle regulatory components.

CHROMOSOMAL LOCATION

Genetic locus: TTK (human) mapping to 6q14.1.

SOURCE

TTK (C-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of TTK 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-540 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TTK (C-19) is recommended for detection of TTK of human and rat origin by Western Blotting (starting dilution 1:200, 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), 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).

Suitable for use as control antibody for TTK siRNA (h): sc-36758, TTK shRNA Plasmid (h): sc-36758-SH and TTK shRNA (h) Lentiviral Particles: sc-36758-V.

Molecular Weight of TTK: 97 kDa.

Positive Controls: C32 whole cell lysate: sc-2205, 3611-RF whole cell lysate: sc-2215 or HISM cell lysate: sc-2229.

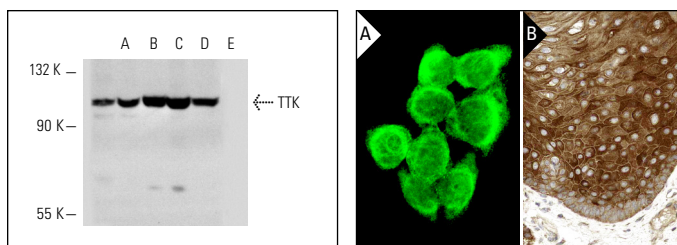
STORAGE

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.

DATA



TTK (C-19): sc-540. Western blot analysis of TTK expression in HeLa (A), BJAB (B), HISM (C), C32 (D) and 3611-RF (E) whole cell lysates.

TTK (C-19): sc-540. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear staining (A). Immunoperoxidase staining of for-malin fixed, paraffin-embedded human oral mucosa tissue showing cytoplasmic staining in surface epithelial cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

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- Huang, Y.F., et al. 2009. TTK/hMps1 mediates the p53-dependent postmitotic checkpoint by phosphorylating p53 at Thr18. *Mol. Cell. Biol.* 29: 2935-2944.
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- Yang, S., et al. 2015. Oncoprotein YAP regulates the spindle checkpoint activation in a mitotic phosphorylation-dependent manner through up-regulation of BubR1. *J. Biol. Chem.* 290: 6191-6202.

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