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TKTL1 (h4): 293T Lysate: sc-171984

BACKGROUND

Transketolase, a crucial component of the pentose phosphate pathway (PPP), functions as a link between glycolysis and the non-oxidative part of the PPP, allowing the cell to adapt to varying metabolic conditions in response to environmental changes. TKTL1 (transketolase-like 1), also known as TKR or TKT2, is a 596 amino acid protein that localizes to both the nucleus and the cytoplasm and belongs to the transketolase family. Expressed in both adult and fetal lung, brain, liver, heart and kidney, TKTL1 exists as a homodimer that uses calcium and thiamine pyrophosphate as cofactors to catalyze the conversion of sedoheptulose 7-phosphate and D-glyceraldehyde 3-phosphate to D-ribose 5-phosphate and D-xylulose 5-phosphate. Overexpression of TKTL1, which exists as multiple alternatively spliced isoforms, is associated with diabetic complications and epithelial tumor growth and invasion.

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CHROMOSOMAL LOCATION

Genetic locus: TKTL1 (human) mapping to Xq28.

PRODUCT

TKTL1 (h4): 293T Lysate represents a lysate of human TKTL1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

TKTL1 (h4): 293T Lysate is suitable as a Western Blotting positive control for human reactive TKTL1 antibodies. Recommended use: 10-20 µl per lane.

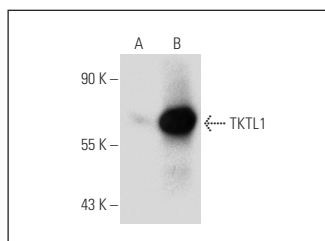
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TKTL1/2 (C-11): sc-271296 is recommended as a positive control antibody for Western Blot analysis of enhanced human TKTL1 expression in TKTL1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



TKTL1/2 (C-11): sc-271296. Western blot analysis of TKTL1 expression in non-transfected: sc-117752 (A) and human TKTL1 transfected: sc-171984 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.