



TKTL2 (A-23): sc-134093

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. TKTL2 (transketolase-like 2) is a 626 amino acid member of the Transketolase family that, like TKTL1, is able to catalyze a specific phosphate transfer reaction.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TKTL2 (human) mapping to 4q32.3; Tktl2 (mouse) mapping to 8 B3.2.

SOURCE

TKTL2 (A-23) is a Protein A purified rabbit polyclonal antibody raised against synthetic TKTL2 peptide of human origin.

PRODUCT

Each vial contains 100 µg of IgG in PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

TKTL2 (A-23) is recommended for detection of TKTL2 of mouse, rat and human 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TKTL2 siRNA (h): sc-89210, TKTL2 siRNA (m): sc-154289, TKTL2 shRNA Plasmid (h): sc-89210-SH, TKTL2 shRNA Plasmid (m): sc-154289-SH, TKTL2 shRNA (h) Lentiviral Particles: sc-89210-V and TKTL2 shRNA (m) Lentiviral Particles: sc-154289-V.

Molecular Weight of TKTL2: 68 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

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.