Transketolase (H-7): sc-390179

**BACKGROUND**

Transketolase (TK or TKT), a member of the Transketolase family, is a multifunctional protein that plays a role in diabetes, cancer, Alzheimer's disease and Wernicke-Korsakoff's syndrome, a latent genetic neurological disorder. Transketolase is also important for the prevention of hyperglycemia-induced vascular damage. Transketolase is a crucial protein in the pentose phosphate pathway (PPP), where it catalyzes several reactions. In combination with Transaldolase, Transketolase 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. Transketolase activity is detected in small intestine epithelia, liver parenchyma, tongue, cornea and trachea. It is also expressed in the proximal tubules of kidney and in ganglion cells in medulla of the adrenal gland.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: TKT (human) mapping to 3p21.1; Tkt (mouse) mapping to 14 B.

**SOURCE**

Transketolase (H-7) is a mouse monoclonal antibody raised against amino acids 261-310 mapping within an internal region of Transketolase of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Transketolase (H-7) is available conjugated to agarose (sc-390179 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390179 HRP), 200 µg/ml, for WB, HCR ELISA; to either phycoerythrin (sc-390179 PE), fluorescein (sc-390179 FITC), Alexa Fluor® 488 (sc-390179 AF488), Alexa Fluor® 546 (sc-390179 AF546), Alexa Fluor® 594 (sc-390179 AF594) or Alexa Fluor® 647 (sc-390179 AF647), 200 µg/ml, for WB (RGB), IF, HCRP and FCM; and to either Alexa Fluor® 680 (sc-390179 AF680) or Alexa Fluor® 790 (sc-390179 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**STORAGE**

Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

Transketolase (H-7) is recommended for detection of Transketolase of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 Transketolase siRNA (h): sc-45591, Transketolase siRNA (m): sc-45592, Transketolase shRNA Plasmid (h): sc-45591-SH, Transketolase shRNA Plasmid (m): sc-45592-SH, Transketolase shRNA (h) Lentiviral Particles: sc-45591-V and Transketolase shRNA (m) Lentiviral Particles: sc-45592-V.

Molecular Weight of Transketolase: 78 kDa.

Positive Controls: c4 whole cell lysate: sc-364186, NIH/3T3 whole cell lysate: sc-2210 or PC-12 cell lysate: sc-2250.

**DATA**

Transketolase (H-7): sc-390179. Western blot analysis of Transketolase expression in c4 (A), NIH/3T3 (B) and PC-12 (C) whole cell lysates.

Transketolase (H-7): sc-390179. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing nuclear and cytoplasmic staining of glandular cells (B).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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