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#8616

Transketolase Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	68	Rabbit	#P29401	7086

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity

Transketolase Antibody recognizes endogenous levels of total transketolase protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val296 of human transketolase protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Transketolase (TKT) is a homodimer in the pentose phosphate pathway (PPP) that catalyzes the interketol transfer between ketoses and aldoses (1,2). This enzyme, along with transaldolase, connects the nonoxidative branch of the PPP with glycolysis (1-3). Several regions of TKT are evolutionarily conserved from gram-negative bacteria to mammals (3). There is evidence that hypoxic (4) and non-hypoxic induction of HIF1-α (5) increases the expression of TKT. Because cancer cells rely on TKT in altered cell metabolism for nucleic acid synthesis, work has been done to develop inhibitors of TKT as novel cancer treatments (5-8).

Background References

- Mitschke, L. et al. (2010) *J Biol Chem* 285, 31559-70.
- Esakova, O.A. et al. (2005) *Life Sci* 78, 8-13.
- Schenk, G. et al. (1997) *J Mol Evol* 44, 552-72.
- Haseloff, R.F. et al. (2006) *Proteomics* 6, 1803-9.
- Zhao, F. et al. (2010) *Oncogene* 29, 2962-72.
- Thomas, A.A. et al. (2008) *Bioorg Med Chem Lett* 18, 2206-10.
- Thomas, A.A. et al. (2008) *Bioorg Med Chem Lett* 18, 509-12.
- Rais, B. et al. (1999) *FEBS Lett* 456, 113-8.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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