

THTR2 (h): 293T Lysate: sc-172333

BACKGROUND

Humans lack biosynthesis pathways for the micronutrients thiamine and folate, however, regulation of these vitamins is necessary for normal cellular function. The SLC19A gene family products mediate membrane transport of these molecules across the membrane to meet cellular requirements; in particular, two transporter proteins differentially import and export thiamine. THTR2 (thiamine transporter 2), also known as SLC19A3 (solute carrier family 19, member 3), is a 496 amino acid multi-pass membrane protein that is responsible for thiamine uptake in epithelial cells. THTR2 is widely expressed but most abundant in placenta, kidney and liver. Defects in THTR2 is thought to cause biotin-responsive basal ganglia disease (BBGD), a recessive disorder that presents as a subacute encephalopathy, with confusion, dysarthria, and dysphagia. BBGD progresses to severe rigidity, dystonia, quadriparesis and death if not treated.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SLC19A3 (human) mapping to 2q36.3.

RESEARCH USE

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

PRODUCT

THTR2 (h): 293T Lysate represents a lysate of human THTR2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

THTR2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive THTR2 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.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.