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TOB2 (h2): 293T Lysate: sc-117169

BACKGROUND

TOB1 (TROB, APRO6, PIG49) and TOB2 (TOB4, TROB2, TOBL) are anti-proliferative proteins that modulate cell cycle progression from the G₀/G₁ to S phases through interactions with the mammalian homologue of yeast Caf1. TOB proteins present in the central nervous system may be engaged in acquisition of motor skill. TOB1 in T lymphocytes can interact with Smad2/4, augment Smad DNA binding to the IL-2 promoter and lead to an inhibition of IL-2 transcription. In oncogenic ErbB-2-transformed cells, nuclear export of TOB1 results in a decrease in antiproliferative activity. ERK/MAPK (ERK2) and JNK/SAPK (JNK2) phosphorylate TOB1 *in vitro*, and TOB1 can undergo phosphorylation at Ser 152, Ser 154 and Ser 164 by ERK 1/2 upon growth-factor stimulation. TOB2 gene encodes a 4.1 kb transcript with high expression in skeletal muscle, thymus and ovary.

REFERENCES

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7. Suzuki, T., et al. 2002. Phosphorylation of three regulatory serines of TOB by ERK 1 and ERK 2 is required for Ras-mediated cell proliferation and transformation. *Genes Dev.* 16: 1356-1370.
8. Kawamura-Tsuzuku, J., et al. 2004. Nuclear localization of TOB is important for regulation of its antiproliferative activity. *Oncogene* 23: 6630-6638.
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CHROMOSOMAL LOCATION

Genetic locus: TOB2 (human) mapping to 22q13.2.

PRODUCT

TOB2 (h2): 293T Lysate represents a lysate of human TOB2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

TOB2 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive TOB2 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.

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.