

Tra-2 α (m): 293T Lysate: sc-124240

BACKGROUND

Human transformer-2 α (Tra-2 α) and Tra-2 β are nuclear proteins that associate with distinct pre-mRNA splicing enhancer elements. Tra-2 α is the functional homolog of the *Drosophila* TRA-2 protein, which regulates the female specific pre-mRNA splicing pattern of the doublesex (dsx) gene in *Drosophila*. Human Tra-2 proteins are able to actively splice *Drosophila* sex factors; however, human Tra-2 α has not been shown to induce sexual differentiation suggesting that human Tra-2 α may regulate splicing patterns involving alternative mechanisms. Tra-2 α and Tra-2 β contain a single RNP-type RNA-binding domain and selectively bind to purine-rich sequences to facilitate mRNA splicing. Expression of Tra-2 β is upregulated during the reoxygenation of hypoxic astrocytes. Tra-2 α and Tra-2 β interact with the serine/arginine-rich (SR) family of splicing factors to form Tra-2/SR complexes that then regulate tissue-specific alternative splicing patterns of many pre-mRNAs.

REFERENCES

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3. Dauwalder, B., Amaya-Manzanares, F. and Mattox, W. 1996. A human homologue of the *Drosophila* sex determination factor transformer-2 has conserved splicing regulatory functions. *Proc. Natl. Acad. Sci. USA* 93: 9004-9009.
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5. Beil, B., Screaton, G. and Stamm, S. 1997. Molecular cloning of hTra2- β -1 and hTra2- β -2, two human homologs of Tra-2 generated by alternative splicing. *DNA Cell Biol.* 16: 679-690.
6. Tacke, R., Tohyama, M., Ogawa, S. and Manley, J.L. 1998. Human Tra2 proteins are sequence-specific activators of pre-mRNA splicing. *Cell* 93: 139-148.

CHROMOSOMAL LOCATION

Genetic locus: Tra2a (mouse) mapping to 6 B2.3.

PRODUCT

Tra-2 α (m): 293T Lysate represents a lysate of mouse Tra-2 α transfected 293T cells and is provided as 100 μ g protein in 200 μ l 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

Tra-2 α (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Tra-2 α antibodies. Recommended use: 10-20 μ l 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.