



ALY (h2): 293T Lysate: sc-176824

BACKGROUND

ALY (also designated THO complex subunit 4, THOC4, REF1, Refbp1 and BEF) is the mammalian homolog of the yeast mRNA export factor Yra1p. A transcriptional coactivator, ALY belongs to the cytidylyltransferase family and is important in mRNA processing and export. During spliceosome assembly, it is recruited to messenger ribonucleoprotein (mRNP) complexes and becomes tightly associated with the spliced mRNP. Consistent with splicing-dependent recruitment, ALY co-localizes with splicing factors in the nucleus. It promotes transcriptional activation by promoting the dimerization of transcription factors containing basic leucine zipper domains. Although ubiquitously expressed, ALY specifically associates with the activation domains of LEF-1 and AML-1, both of which are protein components of the TCR α enhancer complex. Research indicates that ALY may mediate context-dependent transcriptional activation by facilitating the functional collaboration of multiple proteins in the TCR α enhancer complex.

REFERENCES

1. Bruhn, L., et al. 1997. ALY, a context-dependent coactivator of LEF-1 and AML-1, is required for TCR α enhancer function. *Genes Dev.* 11: 640-653.
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3. Strasser, K., et al. 2000. Yra1p, a conserved nuclear RNA-binding protein, interacts directly with Mex67p and is required for mRNA export. *EMBO J.* 19: 410-420.
4. Stutz, F., et al. 2000. REF, an evolutionary conserved family of hnRNP-like proteins, interacts with TAP/Mex67p and participates in mRNA nuclear export. *RNA* 6: 638-650.
5. Zhou, Z., et al. 2000. The protein ALY links pre-messenger-RNA splicing to nuclear export in metazoans. *Nature* 407: 401-405.
6. Luo, M.L., et al. 2001. Pre-mRNA splicing and mRNA export linked by direct interactions between UAP56 and ALY. *Nature* 413: 644-647.
7. Gatfield, D., et al. 2002. REF1/ALY and the additional exon junction complex proteins are dispensable for nuclear mRNA export. *J. Cell Biol.* 159: 579-588.

CHROMOSOMAL LOCATION

Genetic locus: ALYREF (human) mapping to 17q25.3.

PRODUCT

ALY (h2): 293T Lysate represents a lysate of human ALY 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.

RESEARCH USE

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

APPLICATIONS

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

PROTOCOLS

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