

TIAR (m): 293T Lysate: sc-127656

BACKGROUND

FAS, also referred to as CD95 or APO-1, is a type I transmembrane protein that plays a central role mediating viral immunity. TIA-1 and TIAR are two closely related proteins that possess three RRM (RNA recognition motifs), designated RRM 1, 2 and 3. Although both TIA-1 and TIAR are thought to function as mediators of apoptotic cell death, their specific roles in such pathways are unknown. Unlike TIA-1, which is found in the granules of cytotoxic lymphocytes, TIAR expression is limited to the nucleus and found in a much broader range of cells including, but not limited to, cells of hematopoietic origin. TIAR is translocated to the cytoplasm shortly after FAS ligation and this event immediately proceeds the onset of DNA fragmentation. A novel serine/threonine kinase that is activated as a result of FAS ligation, designated FAST (FAS-activated serine/threonine), shows kinase specificity towards both TIA-1 and TIAR. In unstimulated Jurkat cells, FAST resides in the cytoplasm as a highly phosphorylated protein and is quickly dephosphorylated and activated in response to stimulated FAS.

REFERENCES

1. Hanabuchi, S., et al. 1994. FAS and its ligand in a general mechanism of T-cell-mediated cytotoxicity. *Proc. Natl. Acad. Sci. USA* 91: 4930-4934.
2. Taupin, J.L., et al. 1995. The RNA-binding protein TIAR is translocated from the nucleus to the cytoplasm during FAS-mediated apoptotic cell death. *Proc. Natl. Acad. Sci. USA* 92: 1629-1633.
3. Visonneau, S., et al. 1995. A revertant TCR γ/δ^+ cell clone which has lost MHC nonrestricted cytotoxic activity but retains redirected killing upon stimulation of the CD3 receptor. *Cell. Immunol.* 165: 252-265.
4. Anderson, P. 1995. TIA-1: structural and functional studies on a new class of cytolytic effector molecule. *Curr. Top. Microbiol. Immunol.* 198: 131-143.
5. Tian, Q., et al. 1995. FAS-activated serine/threonine kinase (FAST) phosphorylates TIA-1 during FAS-mediated apoptosis. *J. Exp. Med.* 182: 865-874.
6. Dember, L.M., et al. 1996. Individual RNA recognition motifs of TIA-1 and TIAR have different RNA binding specificities. *J. Biol. Chem.* 271: 2783-2788.

CHROMOSOMAL LOCATION

Genetic locus: Tial1 (mouse) mapping to 7 F3.

PRODUCT

TIAR (m): 293T Lysate represents a lysate of mouse TIAR transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

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

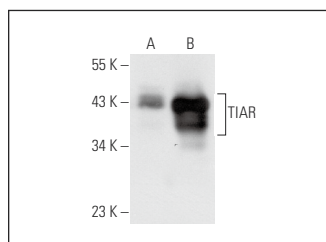
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TIA-1 (G-3): sc-166247 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse TIAR expression in TIAR transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



TIA-1 (G-3): sc-166247. Western blot analysis of TIAR expression in non-transfected: sc-117752 (A) and mouse TIAR transfected: sc-127656 (B) 293T whole cell lysates.

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.

PROTOCOLS

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