



**Catalog No. 73-002EX**

## **Anti-SLA (haploid sperm cell-specific antigen) antibody, clone TRA54**

Many transcripts for proteins specifically expressed in haploid germ cells are synthesized in the spermatogenesis. A monoclonal antibody TRA54 recognizes specific organelles in germ cell cytoplasm from spermatocytes to spermatids (1, 2). Western blots using TRA54 revealed broad bands with 85 kD, 190 kD and >200 kDa in testis probably due to alternative splicing and/or post-translational modification (Fig. 1). The molecular size diversity is due to the difference in glycosilation (Ref. 1). This antibody can be used for immunohistochemical staining of testicular tissues (1, 3).

The hybridoma producing TRA54 was obtained from the immunization of a rat with cell lysates of adult mouse testes by the group of Prof. Yoshitake Nishimune of Osaka University.

### **Applications:**

1. Western blotting (~1 ug/ml) (Ref. 1, 2)
2. Immunohistochemical staining (Ref. 1, 2, 3)
3. Immuno-electron microscopy (Ref. 3). Not tested in other applications

**Product:** The antibody was purified from the serum-free culture medium of the hybridoma clone TRA54 by proprietary chromatography processes under mild conditions.

**Form:** Purified rat IgM (1 mg/ml) in PBS(-), 50% glycerol

**Reactivity:** Mouse and rat. Not tested for other species.

**Size:** 250ug

**Storage:** Store at -20°C

**References:** Antibody TRA54 has been used in the following publications.

1. Pereira LA *et al* "Characterization and expression of a stage specific antigen by monoclonal antibody TRA 54 in testicular germ cell" *Int J Androl* **21**: 34-40 (1998) PMID: [9639150](#) **WB, IHC**
2. Arrotéia KF *et al* "Identification and characterization of an antigen recognized by monoclonal antibody TRA 54 in mouse epididymis and vas deferens" *J Androl* **25**: 914-921 (2004) PMID: [15477363](#) **WB, IHC**
3. Ventelä S *et al* "Intercellular organelle traffic through cytoplasmic bridges in early spermatids of the rat: mechanisms of haploid gene product sharing" *Mol Biol Cell* **14**: 2768-2780 (2003) PMID: [12857863](#) **IHC, Immno-Electron Microscopy.**



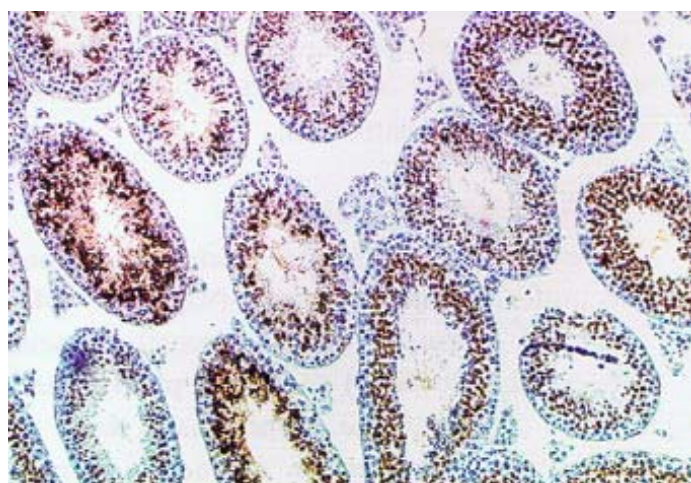
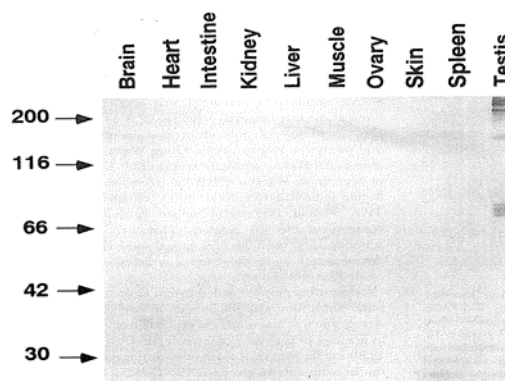
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**Fig.1. Western blot analysis of various mouse tissues with TRA54 antibody.**

For each tissue homogenate, 100 ug protein was applied to each lane. Antibody was used at 1 ug/ml.

Related product: [73-003EX](#) Anti-Gena (testicular germ cell specific antigen) antibody, clone TRA98



**Fig. 2. Immunohistochemical staining of mouse testicular cross-section with TRA54 antibody.**

Testis from C57BL/6 adult mouse was fixed in Bouin's solution, followed by paraffin embedding and sectioning. After deparaffinized, sections were treated with normal goat serum, reacted with TRA54 antibody and incubated with biotinylated sheep anti-rat Ig antibody and biotin peroxidase/avidin, followed by incubation with hydrogen peroxide and diaminobenzidine.

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