

抗 SLA(半数体精子細胞特異的抗原)抗体, ラットモノクローナル (TRA54)

商品コード	73-001
容量	100 µg
保存	-20℃
濃度	1 mg/ml
バッファー	PBS- with 50% glycerol
純度	ハイブリドーマ培養上清から種々のクロマトグラフィーを用いて精製した
抗原	マウス精巣の精巣抽出液
アイソタイプ	ラット IgM
反応性	マウス, ラット
特記事項	TRA54 は、大阪大学微生物病研究所西宗義武教授らのグループによってマウス精巣の精巣抽出液をラットに免疫して得られたハイブリドーマより単離された (1)。
アプリケーション	1) ウェスタンブロッティング 2) 免疫組織染色 3) 免疫電子顕微鏡
背景	精子形成過程には、多くの特異的分子が発現している。 TRA54 は半数体精子細胞に発現し、また、副精巣から分泌され、精子に結合する糖鎖を認識するモノクローナル抗体である (1、2)。 TRA54 を用いた組織のウェスタンブロッティングでは、精巣にのみ反応し、85 kD、190 kD、および 200 kD 以上の分子量のタンパク質が検出される (図 1)。また、免疫染色も可能である (1、3)。
関連商品	73-003 抗 GENA (生殖細胞特異抗原) 抗体, ラットモノクローナル (TRA98)
※本製品は研究用です。診断および軍事目的に使用することはできません。	

画像: 73-001 抗 SLA(半数体精子細胞特異的抗原)抗体, ラットモノクローナル (TRA54)

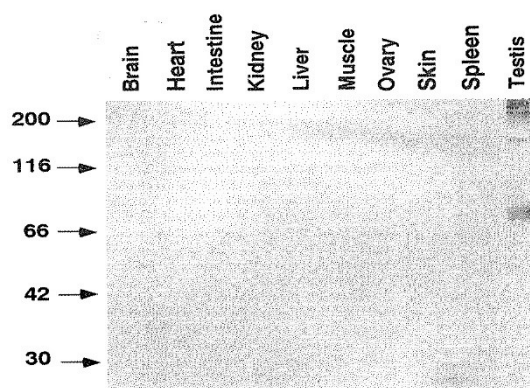


図1 TRA54 を用いたいろいろな組織のウェスタンブロッティング (5,000 倍希釈で使用)

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

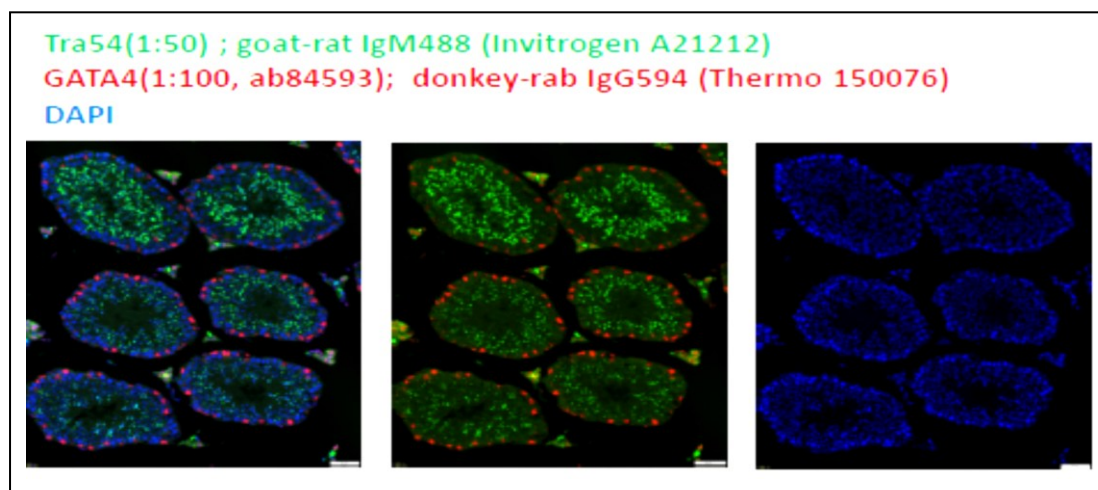


Fig. 2. Immunohistochemical staining of mouse testicular testia with TRA54 antibody.

Sections of 8-month mouse testis were fixed with 4% paraformaldehyde and embedded in paraffin. After antigen retrieval by exposing to steam for 15 min in 10 mM citrate buffer (pH 6), they were reacted with the anti-TRA54 antibody (Green) at 1/50 dilution and anti-GATA4 antibody (Red). As the 2nd antibody, Donky anti-rat Alexa Fluor488 and Donkey anti-rabbit Alexa Fluor594 were used. DNA was stained with DAPI (Blue) .

Anti-GATA antibody stains nuclei of Sertoli cells in seminiferous tubule while anti-TRA54 antibody stains reproductive cells.

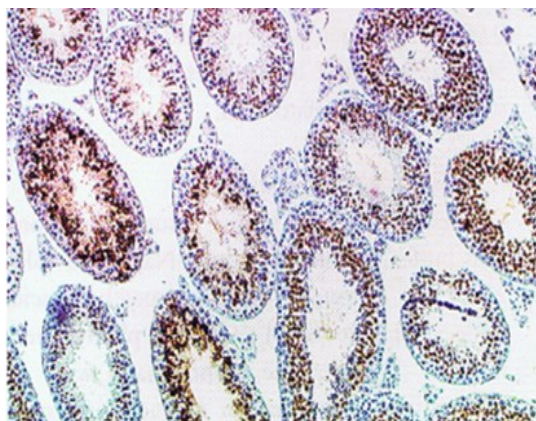


Fig. 3. Immunohistochemical staining of mouse testicular cross-section with TRA54 antibody.

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.

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

1. Matsubara Y. et al. TALEN-Mediated Gene Disruption on Y Chromosome Reveals Critical Role of EIF2S3Y in Mouse Spermatogenesis. [Stem Cells Dev.](#) 2015 May 15;24(10):1164-70. PMID:25579647. **IHC-P (mouse)**
2. Okuda H. et al. A novel transcriptional factor Nkapl is a germ cell-specific suppressor of Notch signaling and is indispensable for spermatogenesis. [PLoS One.](#) 2015 Apr 14;10(4):e0124293. PMID:25875095. **WB (mouse)**
3. Park ASK et al. Targeted disruption of Tbc1d20 with zinc-finger nucleases causes cataracts and testicular abnormalities in mice. [BMC Genet.](#) 2014 Dec 5;15:135. PMID: 25476608. **IHC-P (mouse)**
4. Arroteia KF et al. Albumin is synthesized in epididymis and aggregates in a high molecular mass glycoprotein complex involved in sperm-egg fertilization. [PLoSOne.](#) 2014 Aug 1;9(8):e103566. PMID: 25084016. **WB, Dot blot, IP, IF, Immuno Electron Microscopy (mouse)**
5. Liegel RP et al. Alkylglycerone phosphate synthase (AGPS) deficient mice: models for rhizomelic chondrodysplasia punctate type 3 (RCDP3) malformation syndrome. [Mol Genet Metab Rep.](#) 2014;1:299-311. PMID: 25197626. **IHC-P (mouse)**
6. Tokunaga K et al. The 193-Base Pair *Gsg2* (Haspin) Promoter Region Regulates Germ Cell-Specific Expression Bidirectionally and Synchronously. [Biol Reprod.](#) 2007 Mar;76(3):407-14. PMID:17123944. **WB (mouse)**
7. Tokuhiko K et al. The 193-base pair *Gsg2* (haspin) promoter region regulates germ cell-specific expression bidirectionally and synchronously. [Biol Reprod.](#) 2007 Mar;76(3):407-14. PMID: 17123944. **WB (mouse)**
8. Arroteia 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 (mouse)**
9. Matsuoka Y et al. Cloning and characterization of a mouse spergen-1 localized in sperm mitochondria. [Int J Androl.](#) 2004 Jun;27(3):152-60. PMID: 15139970 **WB (mouse)** 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, Immuno-Electron Microscopy.(mouse)**

10. Deng W, Lin H. miwi, a murine homolog of piwi, encodes a cytoplasmic protein essential for spermatogenesis. [Dev Cell](#). 2002 Jun;2(6):819-30. PMID: 12062093. **IHC-F (mouse)**
11. 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 (mouse)**