

## Anti-Human TRA-1-60 Antibody, Clone TRA-1-60R, PE

### Antibodies

Mouse monoclonal IgM antibody  
against human, rhesus, rabbit  
TRA-1-60 (Podocalyxin), PE-conjugated

Catalog #60064PE  
#60064PE.1

100 tests      5 µL/test  
25 tests      5 µL/test



Scientists Helping Scientists™ | [WWW.STEMCELL.COM](http://WWW.STEMCELL.COM)

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

[INFO@STEMCELL.COM](mailto:INFO@STEMCELL.COM) • [TECHSUPPORT@STEMCELL.COM](mailto:TECHSUPPORT@STEMCELL.COM)

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.

### Product Description

The TRA-1-60R antibody reacts with TRA-1-60, a >200 kDa pluripotent stem cell-specific protein expressed on the surface of undifferentiated human embryonic stem (ES), induced pluripotent stem (iPS), embryonal carcinoma (EC) and embryonic germ (EG) cells, as well as rhesus monkey ES cell lines. A soluble form of TRA-1-60 has been detected in serum of patients with embryonal carcinoma. The epitope, which is lost upon cell differentiation, contains sialic acid and is associated with a large-molecular-mass transmembrane protein named podocalyxin. Though sialylated, the epitope recognized by the TRA-1-60R antibody is resistant to treatment with neuraminidase.

**Target Antigen Name:** TRA-1-60 (Podocalyxin)

**Alternative Names:** Podocalyxin, TRA-1

**Gene ID:** 5420

**Species Reactivity:** Human, Rhesus, Rabbit

**Host Species:** Mouse

**Clonality:** Monoclonal

**Clone:** TRA-1-60R

**Isotype:** IgM, kappa

**Immunogen:** Human embryonal carcinoma cell line 2102Ep cl.2A6

**Conjugate:** PE

### Applications

**Verified:** CellSep, FC, ICC, IF

**Reported:** FC

**Special Applications:** This antibody clone has been verified for labeling human ES and iPS cells grown in TeSR™-E8™ (Catalog #05940), mTeSR™1 (Catalog #05850) and TeSR™2 (Catalog #05860) and has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human ES/iPS Cell TRA-1-60 Positive Selection Kit (Catalog #18166).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

### Properties

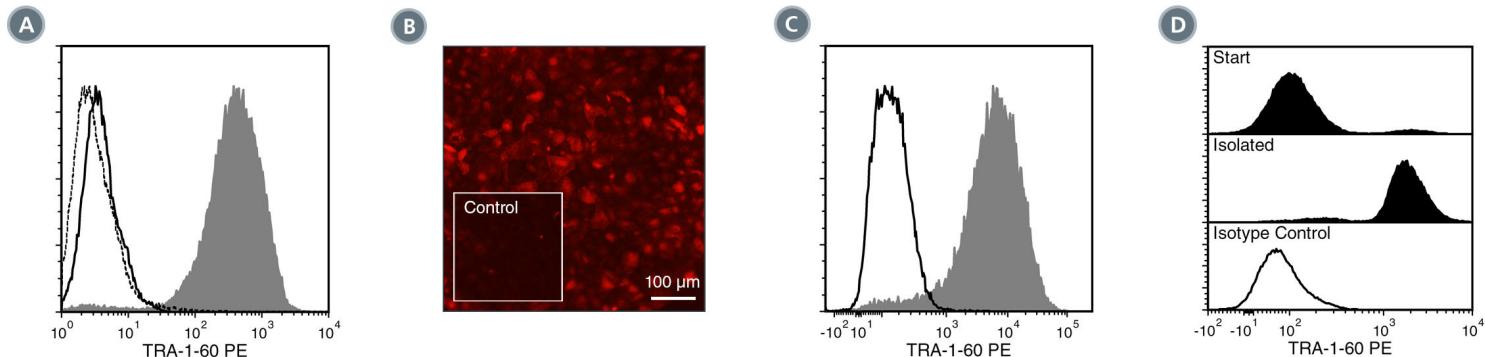
**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) bovine serum albumin

**Purification:** The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.

**Stability and Storage:** Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

**Directions for Use:** The suggested use of this antibody is: FC, 5 µL per 1 x 10<sup>6</sup> cells in 100 µL volume; ICC/IF, 100X dilution. It is recommended that the antibody be titrated for optimal performance for each application

## Data



(A) Flow cytometry analysis of human embryonic stem (ES) cells (filled histogram) or HT1080 fibrosarcoma cells (negative control; dashed line histogram) labeled with Anti-Human TRA-1-60 Antibody, Clone TRA-1-60R, PE. Labeling of human ES cells with Mouse IgM, kappa Isotype Control Antibody, Clone MM-30, PE is shown (Catalog #60069PE; solid line histogram).

(B) Human ES cells were cultured in mTeSR™1 on BD Matrigel™-coated glass slides, then fixed and stained with Anti-Human TRA-1-60 Antibody, Clone TRA-1-60R, PE. Inset shows cells labeled with Mouse IgM, kappa Isotype Control Antibody, Clone MM-30, PE.

(C) Flow cytometry analysis of human iPS cells labeled with Anti-Human TRA-1-60 Antibody, Clone TRA-1-60R, PE (filled histogram) or Mouse IgM, kappa Isotype Control Antibody, Clone MM-30, PE (open histogram).

(D) Flow cytometry analysis of human ES cells isolated with the EasySep™ Human ES/iPS Cell TRA-1-60 Positive Selection Kit from a mixed population of ES cells and HT1080 fibrosarcoma cells and labeled with Anti-Human TRA-1-60 Antibody, Clone TRA-1-60R, PE. Histograms show labeling of the starting population containing ~5% ES cells (Start) and the isolated cells (Isolated). Labeling with Mouse IgM, kappa Isotype Control Antibody, Clone MM-30, PE is shown in the bottom panel (open histogram).

## Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at [www.stemcell.com/antibodies](http://www.stemcell.com/antibodies) or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

## References

1. Andrews PW, et al. Three monoclonal antibodies defining distinct differentiation antigens associated with different high molecular weight polypeptides on the surface of human embryonal carcinoma cells. *Hybridoma* 3(4): 347-61, 1984
2. Thomson JA, et al. Isolation of a primate embryonic stem cell line. *Proc Natl Acad Sci USA* 92(17): 7844-48, 1995 (IHC)
3. Draper JS, et al. Surface antigens of human embryonic stem cells: changes upon differentiation in culture. *J Anat* 200(3): 249-58, 2002
4. Henderson JK, et al. Preimplantation human embryos and embryonic stem cells show comparable expression of stage-specific embryonic antigens. *Stem Cells* 20(4): 329-37, 2002 (FC, IF)
5. Hockemeyer D, et al. A drug-inducible system for direct reprogramming of human somatic cells to pluripotency. *Cell Stem Cell* 3(3): 346-53, 2008
6. Chan EM, et al. Live cell imaging distinguishes bona fide human iPS cells from partially reprogrammed cells. *Nature Biotechnol* 27(11): 1033-38, 2009
7. Kuai XL, et al. Differentiation of nonhuman primate embryonic stem cells along neural lineages. *Differentiation* 77(3): 229-38, 2009 (IF)
8. King F, et al. Subpopulations of human embryonic stem cells with distinct tissue-specific fates can be selected from pluripotent cultures. *Stem Cells Dev.* 18(10): 1441-50, 2009 (FC)
9. Miyoshi N, et al. Defined factors induce reprogramming of gastrointestinal cancer cells. *Proc Natl Acad Sci USA* 107(1): 40-45, 2010 (IF)
10. Natunen S, et al. The binding specificity of the marker antibodies Tra-1-60 and Tra-1-81 reveals a novel pluripotency-associated type 1 lactosamine epitope. *Glycobiology* 21(9): 1125-30, 2011

Copyright © 2014 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design and Scientists Helping Scientists are trademarks of STEMCELL Technologies Inc. TeSR and mTeSR are trademarks of WAVE. All other trademarks are the property of their respective holders. Alexa Fluor® is a registered trademark of Life Technologies Corporation. This product is licensed for internal research use only and its sale is expressly conditioned on the buyer not using it for manufacturing, performing a service, or medical test, or otherwise generating revenue. For use other than research, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad, CA 92008 USA or [outlicensing@lifetech.com](mailto:outlicensing@lifetech.com).

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485 MEDICAL DEVICE STANDARDS.