

## Antibodies

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

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

Catalog #60064BT

100 µg 0.5 mg/mL



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## 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) and induced pluripotent stem (iPS) cells, embryonal carcinoma (EC) cells, 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:	Biotin

## Applications

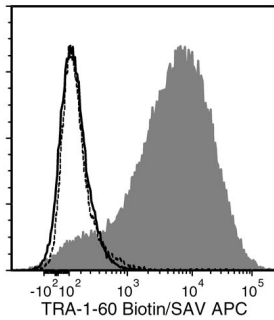
Verified:	FC
Reported:	FC, ICC, IF, IHC, IP, WB
Special Applications:	This antibody clone has been verified for labeling human ES and iPS cells grown in TeSR™-E8™ (Catalog #05990), mTeSR™1 (Catalog #85850), and TeSR™2 (Catalog #05860), and for purity assessments of cells isolated using EasySep™ kits, including EasySep™ Human ES/iPS Cell TRA-1-60 Positive Selection Kit (Catalog #18166; partial blocking may be observed) and EasySep™ hESC/hiPSC SSEA-4 Positive Selection (Catalog #18165).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

## Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry, the suggested use of this antibody is ≤ 0.25 µg per 1 x 10 <sup>6</sup> cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

## Data



Flow cytometry analysis of human 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, Biotin, followed by streptavidin (SAV) APC. Labeling of human ES cells with a mouse IgM, kappa biotin isotype control antibody, followed by SAV APC is shown (solid line 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. Natunen S et al. (2011) 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.
2. Miyoshi N et al. (2010) Defined factors induce reprogramming of gastrointestinal cancer cells. *Proc Natl Acad Sci USA* 107(1): 40–5. (IF)
3. Chan EM et al. (2009) Live cell imaging distinguishes bona fide human iPS cells from partially reprogrammed cells. *Nat Biotechnol* 27(11): 1033–7.
4. King FW et al. (2009) Subpopulations of human embryonic stem cells with distinct tissue-specific fates can be selected from pluripotent cultures. *Stem Cells Dev* 18(10): 1441–50. (FC)
5. Kuai XL et al. (2009) Differentiation of nonhuman primate embryonic stem cells along neural lineages. *Differentiation* 77(3): 229–38. (IF)
6. Hockemeyer D et al. (2008) A drug-inducible system for direct reprogramming of human somatic cells to pluripotency. *Cell Stem Cell* 3(3): 346–53.
7. Draper JS et al. (2002) Surface antigens of human embryonic stem cells: changes upon differentiation in culture. *J Anat* 200(3): 249–58.
8. Henderson JK et al. (2002) Preimplantation human embryos and embryonic stem cells show comparable expression of stage-specific embryonic antigens. *Stem Cells* 20(4): 329–37. (FC, IF)
9. Thomson JA et al. (1995) Isolation of a primate embryonic stem cell line. *Proc Natl Acad Sci USA* 92(17): 7844–8. (IHC)
10. Andrews PW et al. (1984) 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.

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