Technical Data Sheet

PE Mouse anti-Human TRA-1-85 Antigen

Product Information

Material Number: 563021

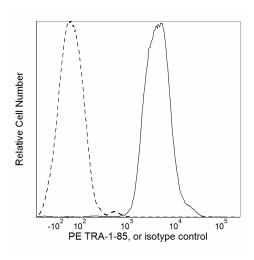
Alternate Name: OKa, CD147, EMMPRIN, Basigin

Immunogen: Human Embryonal Carcinoma Cell Line

Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The TRA-1-85 monoclonal antibody (mAb) specifically binds to the high frequency blood group antigen OKa. The OKa blood group antigen is a 35-69 kDa glycoprotein also known as CD147, EMMPRIN, M6, or Basigin. The OKa group is widely expressed on most human tissues including, but not limited to kidney, peripheral blood leukocytes, liver, pancreas, colon, skin, and brain. TRA-1-85 mAb is often used to discern human cells from non-human cells in multiple applications including animal transplantation studies. During development, the purified TRA-1-85 mAb was found to detect OKa blood group antigen by western blot analysis of cellular lysates, by immunofluorescent staining of fixed cells, and by flow cytometric analysis of live cells.



Flow cytometric analysis of TRA-1-85 expression on human peripheral blood lymphocytes. Human whole blood was stained with PE Mouse anti-Human TRA-1-85 Antigen monoclonal antibody (solid line histogram) or with PE Mouse IgG1, κ Isotype Control (Cat. No. 554680; dashed line histogram). Red blood cells were then lysed using BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of lymphocytes. Flow cytometry was performed using a BD LSRFortessa™ Flow Cytometer System.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry Routinely Tested

Suggested Companion Products

| Catalog Number | Name | Size | Clone | |
|----------------|----------------------------------|--------|---------|--|
| 554680 | PE Mouse IgG1, κ Isotype Control | 0.1 mg | MOPC-21 | |
| 555899 | Lysing Buffer | 100 ml | (none) | |
| 554656 | Stain Buffer (FBS) | 500 ml | (none) | |

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563021 Rev. 1 Page 1 of 2

Product Notices

- This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10⁶ cells in a 100-μl experimental sample (a test).
- 2. An isotype control should be used at the same concentration as the antibody of interest.
- 3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
- For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
- 6. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Choi KD, Yu J, Smuga-Otto K, Salvagiotto G, Rehrauer W, Vodyanik M, Thomson J, Slukvin I. Hematopoietic and endothelial differentiation of human induced pluripotent stem cells. Stem Cells. 2009; 27(3):559-567. (Clone-specific: Flow cytometry)

Draper JS, Pigott C, Thomson JA, Andrews PW. Surface antigens of human embryonic stem cells: changes upon differentiation in culture. *J Anat.* 2002; 200:249-258. (Clone-specific: Flow cytometry)

Olivier EN, Rybicki AC, Bouhassira EE. Differentiation of human embryonic stem cells into bipotent mesenchymal stem cells. Stem Cells. 2006; 24(8):1914-1922. (Biology)

Spring FA, Holmes CH, Simpson KL, et.al. The Oka blood group antigen is a marker for the M6 leukocyte activation antigen, the human homolog of OX-47 antigen, basigin and neurothelin, an immunoglobulin superfamily molecule that is widely expressed in human cells and tissues. *Eur J Immunol.* 1997; 27(4):891-897. (Clone-specific: Flow cytometry, Immunohistochemistry, Western blot)

Williams BP, Daniels GL, Pym B, Sheer D, Povey S, Okubo Y, Andrews PW, Goodfellow PN. Biochemical and genetic analysis of the OKa blood group antigen. Immunogenetics. 1988; 27:322-329. (Clone-specific: Flow cytometry)

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563021 Rev. 1 Page 2 of 2