Human/Mouse Oct-3/4 Fluorescein-conjugated Antibody

Monoclonal Rat IgG_{2B} Clone # 240408

Catalog Number: IC1759F

100 Tests, 25 Tests

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human Oct-3/4 in Western blots and detects mouse Oct-3/4 in flow cytometry.
Source	Monoclonal Rat IgG_{2B} Clone # 240408
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human Oct-3/4 Met1-Asn265 (Met262Leu) Accession # Q01860
Conjugate	Fluorescein Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm (FITC)
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

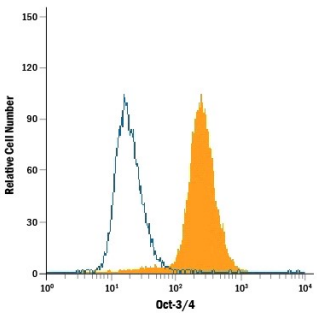
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	10 µL/10^6 cells	See Below

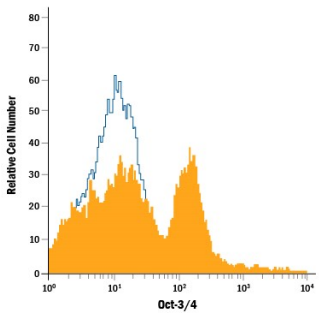
DATA

Intracellular Staining by Flow Cytometry



Detection of Oct-3/4 in BG01V Human Cells by Flow Cytometry. BG01V human embryonic stem cells were stained with Rat Anti-Human/Mouse Oct-3/4 Fluorescein-conjugated Monoclonal Antibody (Catalog # IC1759F, filled histogram) or isotype control antibody (Catalog # IC013F, open histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.

Intracellular Staining by Flow Cytometry



Detection of Oct-3/4 in Mouse Embryonic Stem Cells by Flow Cytometry. Mouse embryonic stem cells treated with 5 µM Retinoic Acid for 2 days were stained with Rat Anti-Human/Mouse Oct-3/4 Fluorescein-conjugated Monoclonal Antibody (Catalog # IC1759F, filled histogram) or isotype control antibody (Catalog # IC013F, open histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Oct-3/4, also termed Oct-3 or Oct-4, is a POU transcription factor that is expressed in totipotent embryonic stem and germ cells.(2, 3) Oct-3/4 is required to sustain stem cell self-renewal and pluripotency.(4) It is considered a master regulator of pluripotency that controls lineage commitment and is the most widely recognized marker of totipotent embryonic stem cells.

References:

1. Takeda, J. *et al.* (1992) Nucleic Acids Res. **20**:4613.
2. Scholer, H.R. *et al.* (1989) EMBO J. **8**:2543.
3. Rosner, M.H. *et al.* (1990) Nature **345**:686.
4. Niwa, H. *et al.* (2000) Nat. Genet. **24**:372.

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