

# Human/Mouse Oct-3/4 PE-conjugated Antibody

Monoclonal Rat IgG<sub>2B</sub> Clone # 240408

Catalog Number: IC1759P 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 <sub>2B</sub> 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	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm		
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.		

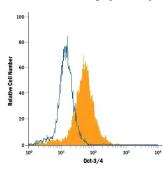
#### **APPLICATIONS**

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.

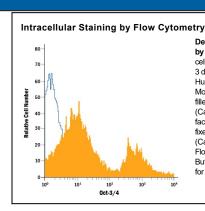
	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	10 μL/10 <sup>6</sup> cells	See Below

# 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 PE-conjugated Monoclonal Antibody (Catalog # IC1759P, filled histogram) or isotype control antibody (Catalog # IC013P, 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.



Detection of Oct-3/4 in Mouse Stem Cells by Flow Cytometry. Mouse embryonic stem cells treated with 5  $\mu$ M Retinoic Acid for 3 days were stained with Rat Anti-Human/Mouse Oct-3/4 PE-conjugated Monoclonal Antibody (Catalog # IC1759P, filled histogram) or isotype control antibody (Catalog # IC013P, 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 (1- 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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