

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Oct-4A in Western blots.
Source	Monoclonal Mouse IgG _{2A} Clone # 653108
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Oct-4A Met1-Glu135 Accession # NP_002692
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.

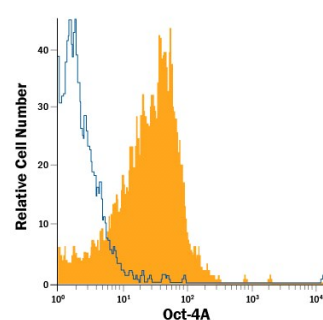
APPLICATIONS

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 ⁶ cells	See Below

DATA

Intracellular Staining by Flow Cytometry



Detection of Oct-4A in BG01V Human Cells by Flow Cytometry. BG01V human embryonic stem cells were stained with Mouse Anti-Human Oct-4A PE-conjugated Monoclonal Antibody (Catalog # IC6344P, filled histogram) or isotype control antibody (Catalog # IC003P, 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, alternately Oct-3 or Oct-4, is POU5F1 (POU domain containing, class 5, transcription factor 1), a 360 amino acid (aa) transcription factor that is expressed in totipotent embryonic stem and germ cells. The human Oct-4, Oct-3/4 or POU5F1 gene can be transcribed into at least three transcripts (Oct-4A, Oct-4B, and Oct-4B1) and generates four protein isoforms by alternative splicing and alternative translation initiation. Oct-4A expression is restricted to embryonic stem (ES) and embryonic carcinoma (EC) cells and is believed to be the transcription factor responsible for the pluripotency properties of embryonic stem (ES) cells. In contrast, Oct-4B/4B1 can be detected in various nonpluripotent cell types and cannot sustain ES cell pluripotency and self-renewal.