Human Oct-4A
Alexa Fluor® 488-conjugated Antibody

Monoclonal Mouse IgG_{2A} Clone # 653108

Catalog Number: IC17591G

100 µg

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	*E.coli*-derived recombinant human Oct-4A Met1-Glu135 Accession # NP_002692
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2 mg/mL 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	0.25-1 µg/10^6 cells	BG01V human embryonic stem cells, fixed with paraformaldehyde and permeabilized with saponin

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.

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