

Mouse anti-OCT-3/4, clone C-10(Monoclonal)

Clone no. C-10

MONOSAN

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Product name	Mouse anti-OCT-3/4, clone C-10(Monoclonal)
Host	Mouse
Applications	IHC-fr, IHC-P (1:50-1:100)
Species reactivity	Human
Conjugate	-
Immunogen	Amino acids1-134 of Oct-3/4 of human origin
Isotype	IgG2b
Clonality	Monoclonal
Clone number	C-10
Size	1 ml
Concentration	n/a
Format	Purified
Storage buffer	Purified antibody in PBS with 0.2 % BSA and 15mM sodium azide
Storage until expiry date	2-8°C

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES

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**Additional info**

Transcription factors containing the POU homeo domain have been shown to be important regulators of tissue-specific gene expression in lymphoid and pituitary differentiation and in early mammalian development. POU domain proteins contain a bipartite DNA-binding domain divided by a flexible linker that enables them to adopt various monomer configurations on DNA. The versatility of POU protein operation is additionally conferred at the dimerization level. Oct-3 (also known as Oct-4) is a mammalian POU transcription factor expressed by early embryo cells and germ cells. Oct-3/4 is essential for the identity of the pluripotential founder cell population in the mammalian embryo. A critical amount of Oct-3/4 is required to sustain stem-cell self renewal, and up or down regulation induce divergent developmental programs. Two isoforms of Oct-3, termed Oct-3A and Oct-3B, are generated by alternative splicing. The gene which encodes Oct-3/4 maps to human chromosome 6p21.3. Oct-3/4 (C-10) is recommended for detection of Oct-3A (Oct-4) and Oct-3B of mouse, rat and human origin by Western Blotting, immunoprecipitation, immunofluorescence, and paraffin immunohistochemistry.

Pre-treatment: Heat induced epitope retrieval in 10 mM citrate buffer, pH6.0, or in 50 mM Tris buffer pH9.5, for 20 minutes is required for IHC staining on formalin-fixed, paraffin embedded tissue sections. Note: Dilution of the antibody in 10% normal goat serum followed by a goat anti-mouse secondary antibody-based detection is recommended. Control tissue Seminoma or embryonal carcinoma. Staining Nuclear

**References**

1. Drocourt, L., et al. 2002, J. Biol. Chem. 277: 25125-25132.
2. Fong, Y.W., et al. 2011, Cell 147: 120-131.
3. Wang, J., et al. 2011, Cancer Res. 71: 7238-7349.
4. Rijlaarsdam, M.A., et al. 2011, Br. J. Cancer 105: 854-863.
5. Fico, A., et al. 2012, Stem Cells 9: 1863-1874.

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