Oct-3/4
clone C-10

Instructions for Use

Specification:
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.

Availability:

Catalog No.	Contents	Volume
ILM527919-C01	Oct-3/4	0,1 ml concentrate
ILM527919-C05	Oct-3/4	0,5 ml concentrate
ILM527919-C1	Oct-3/4	1,0 ml concentrate

Intended use: For Research Use Only

Reactivity: Human

Clone: C-10

Species of origin: Mouse

Isotype: IgG2b

Control Tissue: Seminoma or embryonal carcinoma

Staining: Nuclear

Immunogen: Amino acids1-134 of Oct-3/4 of human origin

Presentation: Purified antibody in 0.2 % BSA and 15mM sodium azide

Application and suggested dilutions:
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.

- Immunohistochemical staining of cryostat tissue sections (dilution up to 1:50-1:100)
- Immunohistochemical staining of formalin-fixed, paraffin embedded tissue section (dilution up to 1:50-1:100)

The optimal dilution for a specific application should be determined by the investigator.

Note: Dilution of the antibody in 10% normal goat serum followed by a goat anti-mouse secondary antibody-based detection is recommended.

Storage & Stability: Store at 2-8 °C do not freeze. Do not use after expiration date printed on the vial.

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) Childs, A.J., et al. 2012, Stem Cells Dev. 21: 2343-2349.
6) Torres, J., et al. 2012. PLoS ONE 7: e36405.
7) McDonel, P., et al. 2012, Dev. Biol. 363: 62-73.
8) Fico, A., et al. 2012, Stem Cells 9: 1863-1874.
9) Yi, F., et al. 2012. Protein Cell 3: 855-863.