

Oct-4 (Clone C-10) Mouse Monoclonal Antibody

Specificity: Human. Others-not known

Immunogen: Amino acids 1-134 of Oct-4 of human origin

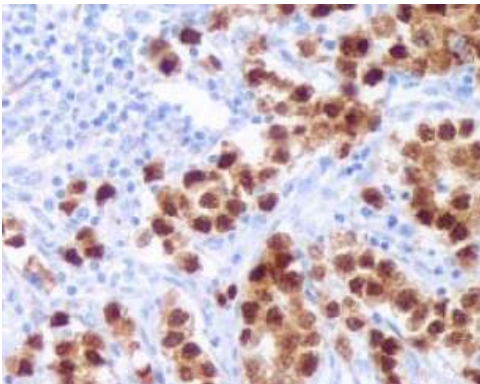
Ig Class: IgG2b

Storage: Store vial at 4°C. When stored at 2-8°C, this antibody is stable for 24 months

Staining procedures: Use formalin-fixed and paraffin-embedded sections. *Retrieval conditions:* Pretreatment of deparaffinized tissue with heat-induced epitope retrieval is recommended. *Detection methods:* Polymer anti-mouse/rabbit Ig detection system. *Working dilution:* 1:50-100; *Positive Control:* Seminoma. *Cellular Localization:* Nuclear. *Intended Use:* In vitro diagnosis (IVD).

Description: 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-4 is essential for the identity of the pluripotential founder cell population in the mammalian embryo. A critical amount of Oct-4 is required to sustain stem-cell self renewal, and up or down regulation induce divergent developmental programmes. 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-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.

Supplied As: Purified antibody in 0.2% BSA and 15mM sodium azide.



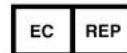
References:

1. Browne P, et al. *Am J Clin Pathol.* 2003; 120:767-77.
2. García-Cosío M, et al. *Mod Pathol.* 2004; 17:1531-8.
3. Gibson SE, et al. *Am J Clin Pathol.* 2006; 126:916-24.

Formalin-fixed, paraffin-embedded human seminoma stained with anti-OCT-4 antibody using peroxidase-conjugate and DAB chromogen. Note the nuclear staining of seminoma cells

Cat. #Z2104 (1.0 ml)

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