

Mouse Anti-OCT3/4 [C-10]: MC0561, MC0561RTU7

Intended Use: For Research Use Only

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-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 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-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.

Specifications

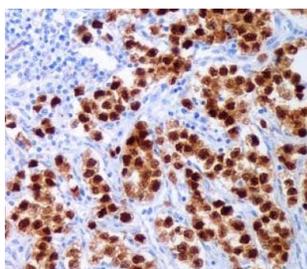
Clone: C-10
 Source: Mouse
 Isotype: IgG2b
 Reactivity: Human, mouse, rat
 Localization: Nucleus
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
 Storage: Store at 2°- 8°C.
 Applications: IHC, Flow Cyt., ELISA, ICC/IF, IP, WB
 Package:

Description	Catalog No.	Size
OCT3/4 Concentrated	MC0561	1 ml
OCT3/4 Prediluted	MC0561RTU7	7 ml

IHC Procedure*

Positive Control Tissue: Seminoma
 Concentrated Dilution: 25-100
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human seminoma stained with anti-OCT3/4 using DAB

References:

1. Leukemia inhibitory factor (LIF) withdrawal activates mTOR signaling pathway in mouse embryonic stem cells through the MEK/ERK/TSC2 pathway. Cherepkova, MY. et al. Cell Death Dis. 7: e2050, 2016.
2. Influence of Growth Characteristics of Induced Pluripotent Stem Cells on Their Uptake Efficiency for Layer-by-Layer Microcarriers. Reibetanz, U. et al. ACS nano. 10: 6563-73, 2016.
3. Sall4 is essential for mouse primordial germ cell specification by suppressing somatic cell program genes. Yamaguchi, YL. et al. Stem Cells. 33: 289-300, 2015.