

Rabbit Anti-OCT4A [MD37R]: RM0340, RM0340RTU7

Intended Use: For Research Use Only

Description: OCT4 (OTF3 or POU5F1) is a member of the POU family of transcription factors, involved in the regulation of pluripotency during normal development and is detectable in embryonic stem and germ cells. It can specifically bind to the octamer motif (5'-ATTTTCAT-3'), and it is critical for the self-renewal of embryonic stem cells. A network of key factors OCT4, Nanog, and SOX2 is necessary for the maintenance of pluripotent potential, and downregulation of OCT4 has been shown to trigger cell differentiation. Research studies have demonstrated that OCT4 is a sensitive and specific germ cell tumor marker. OCT4 exists as two splice variants, OCT4A and OCT4B. OCT4A 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 ES cells. OCT4B can be detected in various nonpluripotent cell types and cannot sustain ES cell pluripotency and self-renewal.

Specifications:

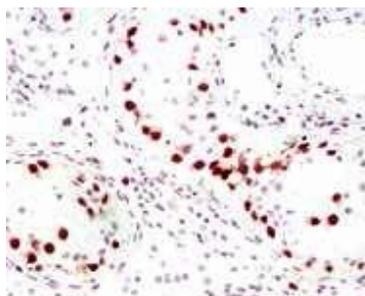
Clone: MD37R
 Source: Rabbit
 Isotype: IgG
 Reactivity: Human
 Immunogen: Recombinant protein specific to the amino terminus of human OCT4A
 Localization: Nucleus
 Formulation: Antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC, CHIP, Flow Cyt., ICC/IF, WB
 Package:

Description	Catalog No.	Size
OCT4A Concentrated	RM0340	1 ml
OCT4A Prediluted	RM0340RTU7	7 ml

IHC Procedure*:

Positive Control Tissue: Seminoma and dysgerminoma of ovary tissues
 Concentrated Dilution: 50-100
 Pretreatment: Tris EDTA pH9.0, 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-OCT4A using DAB

References:

1. Stem cell markers in oral and oropharyngeal squamous cell carcinomas in relation to the site of origin and HPV infection: clinical implications. Davide Rizzo #, et al. Acta Otorhinolaryngol Ital. Apr;40(2):90-98, 2020.
2. Primordial germ cells do not migrate along nerve fibres in marmoset monkey and mouse embryos. E Wolff, et al., Reproduction. Jan;157(1):101-109, 2019.

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Rev. A