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DATA SHEET

Rabbit Anti-OCT4 [EP143]: RM0148, RM0148RTU7

Intended Use: For Research Use Only

Description: OCT4, also known as 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'-ATTTCAT-3'), and it is critical for the self-renewal of embryonic stem cells. Overall, OCT4 is a key regulator of self-renewal in embryonic stem cells; its expression is potentially correlated with tumorigenesis and can affect some aspects of tumor behavior such as tumor recurrence or resistance to therapies. OCT4 is expressed in undifferentiated pluripotency cells, germ cells in ovary and testes. OCT4 is a sensitive and specific marker for germ cell tumors. It is consistently detected in carcinoma in situ/gonadoblastoma, seminomas, germinoma, dysgerminoma, and embryonal carcinoma but not in the differentiated components of nonseminomas, i.e., teratomas, yolk sac tumors, and choriocarcinomas. An antibody to OCT4 is useful in the identification of primary as well as metastatic germ cell tumors.

Specifications

Clone:	EP143
Source:	Rabbit
Isotype:	IgG
Reactivity:	Human
Localization:	Nucleus
Formulation:	Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
Storage:	Store at 2°- 8°C
Applications:	IHC

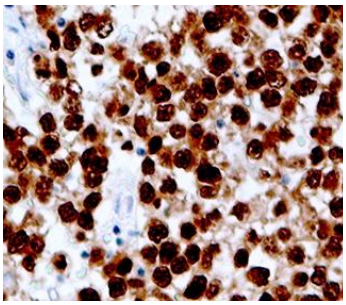
Package:

Description	Catalog No.	Size
OCT4 Concentrated	RM0148	1 ml
OCT4 Prediluted	RM0148RTU7	7 ml

IHC Procedure*

Positive Control Tissue:	Seminoma
Concentrated Dilution:	50-200
Pretreatment:	Citrate pH6.0, 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-OCT4 using DAB

References:

1. Pseudogene OCT4-pg4 functions as a natural micro RNA sponge to regulate OCT4 expression by competing for miR-145 in hepatocellular carcinoma. Wang L, et al. Carcinogenesis 34:1773-81, 2013.
2. Identification of cancer stem-like side population cells in purified primary cultured human laryngeal squamous cell carcinoma epithelia. Wu CP, et al. PLoS One 8:e65750, 2013.
3. Breaking human cytomegalovirus major immediate-early gene silence by vasoactive intestinal peptide stimulation of the protein kinase A-CREB-TORC2 signaling cascade in human pluripotent embryonal NTera2 cells. Yuan J, et al. J Virol 83:6391-403, 2009.

Orders: customercare@medaysis.com Support: techsupport@medaysis.com Tel: 510-509-3153 www.medaysis.com