# **Anti-OCT-4 Antibody**

### **RE6048**



**Product Type:** Recombinant Rabbit monoclonal IgG, primary antibodies

Species reactivity: Human

Applications: WB, IHC-P, FC, IP

Molecular Wt: 45kDa

**Description:** Octamer transcription factor-4 (Oct-4) is a homeodomain transcription factor in the POU

transcription factor family that specifically binds to the octamer motif (5'-ATTTCAT-3') (1). It is critical for early embryogenesis and for embryonic stem cell pluripotency, expressed mainly in the developing brain (1). OCT4 is a master regulator that affects the fate of pluripotent stem cells and germ cell precursors (2). For instance, the downregulation of Oct-4 triggers embryonic stem cell differentiation, simultaneous with gastrulation (3). It is also

used as a marker for germ cell tumor diagnosis (4).

Immunogen: peptide

Positive control: Hela, Seminoma, NCCIT.

Subcellular location: Cytoplasm, Nucleus

Database links: SwissProt: Q01860 Human

**Recommended Dilutions:** 

WB 1:1,000 IP 1:10-100 IHC-P 1:100 FC 1:10-100

Storage Buffer: 1\*TBS (pH7.4), 0.5% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at -20  $^{\circ}$ C. Stable for 12 months from date of receipt

Purity: Tissue culture supernatant

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### **Images**

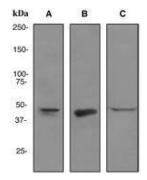
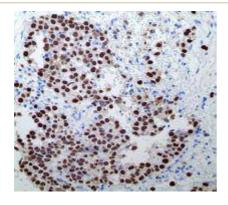


Fig1: Western blot analysis on (A) Seminoma, (B) NCCIT, and (C) HeLa cell lysates using anti-Oct-4



**Fig2:** Immunohistochemical staining of paraffin-embedded human ovarian dysgerminoma using anti-Oct-4 RabMAb.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### **Background References**

- 1. The UniProt Consortium, The Universal Protein Resource (UniProt), Nucleic Acids Res. 37:D169-D174(2010).
- 2. Wei F et al. J Biol Chem. 282(29):21551-60, 2007.
- 3. Pesce et al. Stem Cells. 19(4):271-8, 2001.
- 4. Cheng et al. J Pathol. 211(1):1-9, 2007.