

OCT4 (OCT3) Antibody

ALTERNATE NAMES: POU5F1; OCT3; OCT4; OTF3; POU domain, class 5, transcription factor 1; Octamer-binding protein 3; Octamer-binding protein 4; Octamer-binding transcription factor 3

CATALOG #: 6765-100

AMOUNT: 100 µl

HOST/ISOTYPE: Rabbit IgG

IMMUNOGEN: This OCT4 (OCT3) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 110-141 amino acids from human OCT4 (OCT3).

PURIFICATION: This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

MOLECULAR WEIGHT: ~38.571 kDa

FORM: Liquid

FORMULATION: Supplied in PBS with 0.09% (W/V) sodium azide.

SPECIES REACTIVITY: Human.

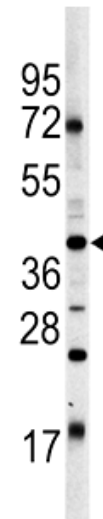
STORAGE CONDITIONS: Maintain refrigerated at 2-8°C for up to 6 months. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.

DESCRIPTION: Oct-4 (POU5F1) is a transcription factor highly expressed in undifferentiated embryonic stem cells and embryonic germ cells. A network of key factors that includes Oct-4, Nanog, and Sox2 is necessary for the maintenance of pluripotent potential, and downregulation of Oct-4 has been shown to trigger cell differentiation. Research studies have demonstrated that Oct-4 is a useful germ cell tumor marker. Oct-4 exists as two splice variants, Oct-4A and Oct-4B. Recent studies have suggested that the Oct-4A isoform has the ability to confer and sustain pluripotency, while Oct-4B may exist in some somatic, non-pluripotent cells.

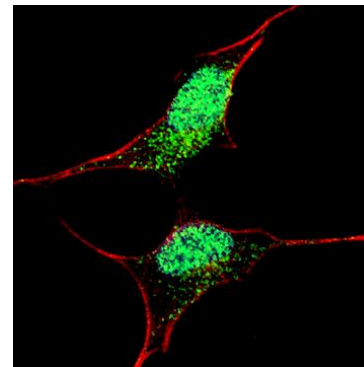
APPLICATION: Western blot: ~1:1000, IF: ~1:10–1:50.

Note: This information is only intended as a guide. The optimal dilutions must be determined by the user.

FOR RESEARCH USE ONLY! Not to be used on humans.



The anti-OCT4 pAb is used in Western blot in HL60 cell line lysate (35 µg/lane).



Fluorescent confocal image of SY5Y cells stained with AP2046c OCT4 (E125) antibody. SY5Y cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min), then incubated with OCT4 (E125) primary antibody (1:500, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (5.25 µM, 25 min). Nuclei were counterstained with Hoechst 33342 (blue) (10 µg/ml, 3 min). OCT4 immunoreactivity is localized mainly to the nuclei and also to the cytoplasm.

RELATED PRODUCTS:

- Oct-1 Antibody (Cat # 3342-100)
- Oct-2 Antibody (Cat # 3575-100)
- Oct-4 Antibody (Cat # 3576-100)

