Purified Anti-Human Oct-3/4 Antibody[40/Oct-3]

catalog number: **AN010010P**

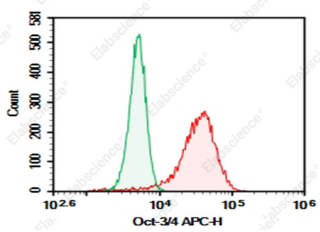
Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

Description

Reactivity	Human
Immunogen	Recombinant Human Oct-3/4 protein
Host	Mouse
Isotype	Mouse IgG1, κ
Clone	40/Oct-3
Purification	>98%, Protein A/G purified
Buffer	Phosphate-buffered solution, pH 7.2, containing 0.05% non-protein stabilizer. Dialyze to completely remove the stabilizer prior to labeling.

Applications	Recommended Dilution
FCM	≤ 0.2 μg per million cells in 100 μL volume

Data



NCCIT cells were intracellularly stained with 0.2 μg Purified Anti-Human Oct-3/4 Antibody[40/Oct-3] (Right) and 0.2 μg Mouse IgG1, κ Isotype Control(Left), followed by APC-conjugated Goat Anti-Mouse IgG Secondary Antibody.

Preparation & Storage

Storage	Store at 4°C valid for 12 months or -20°C valid for long term storage, avoid freeze / thaw cycles.
Shipping	Ice bag

Background

Development of a multicellular organism from a single fertilized cell is regulated by the coordinated activity of DNA transcription factors. Oct3/4, a member of the POU family of transcription factors, functions in pluripotent cells of early embryonic stem cell (ES) lines and embryonal carcinomas (EC). Other members of the POU family include Oct1, Oct2, Pit-1, and unc-86. The POU domain, a 150-amino acid region that determines binding specificity, is conserved among these proteins and consists of 3 subdomains: POU-specific A and B subdomains and a homeobox-like subdomain. Oct3/4 is expressed in undifferentiated cells, but is lost as cells are induced to differentiate. Oct3/4 is not expressed in adult tissues. The interaction of Oct3/4 with SOX2, another embryonic transcription factor, produces an active complex that regulates expression of genes such as Nanog, UTF1, and FGF4. Although Oct3/4 is specifically phosphorylated on serine residues, this modification is not required for DNA binding, but may affect its transactivation potential. Thus, Oct3/4 is a transcription factor that plays an important role in determining early steps of embryogenesis and differentiation.

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