

Anti-NANOG Polyclonal Antibody

Product Details

Ig Type: IgG
Reactivity: Human, Mouse (predicted: Rat)
Molecular Weight: Theoretical: 34 kDa.
Purification: Protein A purified

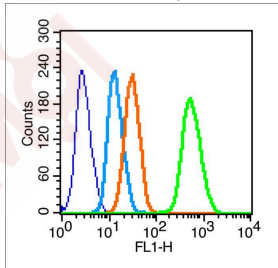
Applications

Blank control (blue line): HeLa (blue).
Primary Antibody (green line): Rabbit Anti-Nanog antibody (TMAB-01201)
Dilution: 1 $\mu\text{g}/10^6$ cells;
Isotype Control Antibody (orange line): Rabbit IgG.
Secondary Antibody (white blue line): f(ab')₂ fragment goat anti-rabbit IgG-FITC
Dilution: 1 $\mu\text{g}/\text{test}$.

Verified Activity:

Protocol

The cells were fixed with 2% paraformaldehyde (10 min), then permeabilized with 90% ice-cold methanol for 30 min on ice. Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2% BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature.



Application: FCM
Recommended: FCM: 3 $\mu\text{g}/\text{Test}$

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping: Shipping with blue ice.

Antigen Details

Immunogen: KLH conjugated synthetic peptide: mouse Nanog
Antigen Species: Mouse
Gene ID: 71950
Biology Area: Cell differentiation, Surface molecules, SMADs, Transcription Factors, Intracellular

Research Background

Nanog is a newly identified homeodomain-bearing transcriptional factor. Nanog expression is specific to early embryos and pluripotential stem cells including mouse and human embryonic stem (ES) and embryonic germ (EG) cells. It is a key molecule involved in the signaling pathway for maintaining the capacity for self-renewal and pluripotency, bypassing regulation by the STAT3 pathway. Nanog mRNA is present in pluripotent mouse and human cell lines, and absent from differentiated cells. Nanog-deficient ES cells lose pluripotency and differentiate into extraembryonic endoderm lineage. Thus it is one of the molecular markers suitable for recognizing the undifferentiated state of stem cells in the mouse and human.

NANOG is a new marker for testicular carcinoma in situ and germ cell tumors.

NANOG is a gene expressed in embryonic stem cells (ESCs) and is thought to be a key factor in maintaining pluripotency. NANOG thought to function in concert with other factors such as POU5F1 and SOX2 to establish ESC identity. These cells offer an important area of study because of their ability to maintain pluripotency. In other words, these cells have the ability to become virtually any cell of any of the three germ layers (endoderm, ectoderm, mesoderm).

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481