Data Sheet (Cat.No.TMAB-09221)

TargetMol

Anti-Nanog Polyclonal Antibody 4

Product Details

Ig Type:	IgG
Reactivity:	Human
Molecular Weight:	Theoretical: 34 kDa. Actual: 34 kDa.
Purification:	Protein A purified

Applications

Verified Activity:	Sample: DU145 (Human) Cell Lysate at 30 µg Primary: Anti-Nanog (TMAB-09221) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 34 kD Observed band size: 34 kD
Application:	WB
Recommended	WB: 1:500-2000

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. 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: human Nanog
Antigen Species:	Human
Gene ID:	100293888
Uniprot ID:	Q9H9S0

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).

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