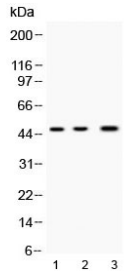
NANOG Antibody / Pluripotency Marker NANOG (R32790)

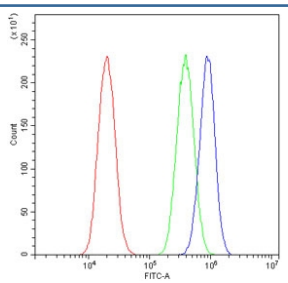
Catalog No.	Formulation	Size
R32790	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

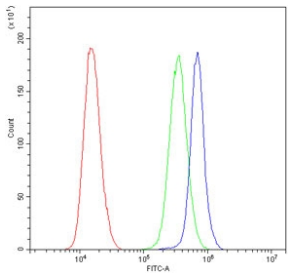
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA, 0.025% sodium azide
UniProt	Q9H9S0
Applications	Western Blot : 0.5-1ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This NANOG antibody is available for research use only.



Western blot testing of 1) rat ovary, 2) mouse ovary and 3) human MCF7 cell lysate with NANOG/Pluripotency Marker NANOG antibody at 0.5ug/ml. Predicted molecular weight: 35-45 kDa.



Flow cytometry testing of human A549 cells with NANOG antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= NANOG antibody.



Flow cytometry testing of human PC-3 cells with NANOG antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= NANOG antibody.

Description

NANOG antibody recognizes Pluripotency Marker NANOG, a transcription factor encoded by the NANOG gene that plays a central role in maintaining pluripotency and self-renewal in embryonic stem cells. NANOG is a homeobox-containing protein that functions primarily in the nucleus, where it regulates gene expression programs critical for early embryonic development and stem cell identity. NANOG antibody is widely used in stem cell biology to identify pluripotent cells and to study mechanisms governing cellular reprogramming and differentiation.

NANOG operates within a core transcriptional network that includes OCT4 and SOX2, forming an interconnected regulatory circuit that sustains pluripotency. By activating genes associated with stemness and repressing differentiation-associated pathways, NANOG helps preserve the undifferentiated state. Loss of NANOG expression typically promotes lineage commitment, while sustained expression supports self-renewal capacity. Because of this pivotal function, NANOG antibody is frequently applied in studies of induced pluripotent stem cells, embryonic stem cells, and developmental biology.

Beyond early development, aberrant NANOG expression has been reported in multiple cancer types, where it has been associated with tumor stem-like properties, resistance to therapy, and enhanced proliferative potential. In these contexts, NANOG antibody is used to investigate cancer stem cell populations and transcriptional programs linked to tumor progression. NANOG protein is predominantly nuclear, and immunostaining typically demonstrates nuclear localization consistent with its function as a transcription factor. Detection of NANOG expression provides insight into pluripotency status, differentiation potential, and stem cell-associated signaling pathways.

Application Notes

Optimal dilution of the NANOG antibody should be determined by the researcher.

Immunogen

Amino acids 115-155 (QRQKYLSLQQMQELSNILNLSYKQVKTWFQNQRMKSKRWQK) from the human protein were used as the immunogen for the NANOG antibody.

Storage

After reconstitution, the NANOG antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.