

# Nanog (Human) Transcription Factor Activity Assay Kit

## Product Information

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**Cat**

Kit-2296

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**Product Overview**

Homeobox-containing transcription factor Nanog is essential in maintaining the pluripotent cells of the inner cell mass and in the derivation of embryonic stem cells (ESCs). Overexpression of Nanog is capable of maintaining the pluripotency and self-renewing characteristics of ESCs under what normally would be differentiation-inducing culture conditions. Concomitant with this essential function in pluripotent cell maintenance, expression of Nanog has restricted patterning in the inner cells of the morula, blastocyst, and epiblast during different developmental processes. Additionally, Nanog acts as a molecular gatekeeper to suppress or ensure differentiation in response to events in fluctuating environments and the presence of stimuli. Nanog has a single homeodomain that binds to DNA through the consensus sequence TAATGG. Coordinating with Oct4 and Sox2, Nanog regulates a large cohort of genes involved in pluripotency and development in later stages. Accurate monitoring of the level of activated Nanog in cells, tissues or animal models is required for both science research investigating signal transduction pathways and applications such as drug development, and simple, speedy and high-throughput methods are needed for this purpose. The Nanog Transcription Factor-Activity Assay kit is a non-radioactive transcription factor assay with an ELISA format. It offers an easy, speedy, sensitive and high-throughput method to detect the activation of transcription factors.

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**Applications**

Detecting the Nanog in human nuclear extraction and whole lysates

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**Storage**

-20°C

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**Shipping**

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## Nanog (Human) Transcription Factor Activity Assay Kit

Gel Pack

### Size

100 assays

### Kit Components

Microplate; DNA Binding Buffer (5X); Positive Control; Specific Competitor DNA Probe; Non-specific Competitor DNA Probe; Assay Reagent; DTT (300 mM); Wash Buffer Concentrate (20X); Primary Antibody; HRP-conjugated Secondary Antibody; Antibody Diluent Buffer; TMB One-Step Substrate Reagent; Stop Solution

### Target Species

Human

**Detection method** Absorbance (450 nm)

### Features & Benefits

A non-radioactive transcription factor assay with an ELISA format.

An easy, speedy, sensitive and high-throughput method to detect the activation of transcription factors.