

SOX2 (Human) Transcription Factor Activity Assay Kit

Cat. No. Kit-2289 Lot. No. (See product label)

SPECIFICATION

Product Overview

SOX2 is a critical component of the core transcriptional regulatory circuitry that controls pluripotency in ESCs. It is essential for the development of the epiblast in the early mammalian embryo and for the maintenance of embryonic stem cells (ESCs). SOX2 is also necessary for the function and maintenance of neural progenitor cells (NPCs) in the nervous system. Further, SOX2 functions in other adult stem cell and progenitor populations in the gastrointestinal and respiratory tract, as well as in the developing lens, inner ear, taste buds, and testes. Together with OCT4 and NANOG, SOX2 binds to the proximal promoters of large cohort of genes involved in pluripotency and development in later stage. SOX2 is a member of the SOX family of transcription factors, which share a highly conserved high-mobility-group (HMG) DNA binding domain. It interacts with DNA by binding to consensus sequence A/TA/TCAAAG. Although SOX1 and SOX3 have more than 80% sequence similarity with SOX2, SOX2 exerts distinct functions and is indispensable for embryonic development. Accurate monitoring of the level of activated SOX2 in cells, tissues or animal models is required for investigating signal transduction pathways and other research applications such as drug development. Simple, speedy and high-throughput methods are required for this purpose. The SOX2 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.

Applications	Detecting the SOX2 in human nuclear extraction and whole lysates.
Storage	-20°C

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Shipping	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.

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