

# NF- $\kappa$ B p50 (Human) Transcription Factor Activity Assay Kit

## Product Information

### Cat

Kit-2246

### Cat.No.

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## Product Overview

NF- $\kappa$ B is a transcription factor that plays a pivotal role in a number of physiological cell processes such as growth, apoptosis, and immune response through regulating the expression of a number of cellular genes. Normally, NF- $\kappa$ B is inactive and retained in the cytoplasm bound to its inhibitory protein I $\kappa$ B. Upon stimulation of various factors such as infection of pathogens including viruses and bacteria or treatment of cytokines such as IL-1 or TNF- $\alpha$ , I $\kappa$ B proteins are phosphorylated, ubiquitinated and finally degraded. Released NF- $\kappa$ B proteins then form homo- or heterodimers, most commonly p50/p65 or p50/p50, which are transported into the nucleus where they bind to specific DNA sequences of targeted genes and activate transcription. NF- $\kappa$ B also induces expression of its own inhibitor, I $\kappa$ B $\alpha$ , which binds to active NF- $\kappa$ B in the nucleus to terminate the induction of gene expression. The NF- $\kappa$ B p50 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. In 96-well plates, double stranded oligonucleotides containing NF- $\kappa$ B binding sequence have been coated. These oligonucleotides specifically capture the active NF- $\kappa$ B p50 contained in whole cell lysate or nuclear extracts after a short incubation. The specificity of the reaction between active NF- $\kappa$ B p50 and the DNA probe is additionally stringent because of the establishment of specific competitive DNA and non-specific.

## Applications

Detecting the NF- $\kappa$ B p50 in human nuclear extraction and whole lysates.

## Storage

-20°C

## Shipping

## NF- $\kappa$ B p50 (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.