

NF-κB (human p50) Transcription Factor Assay Kit

Cat. No. Kit-0621 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

NF-κB (human p50) Transcription Factor Assay Kit is a non-radioactive method for detecting specific transcription factor DNA binding activity.

Description

The NF-κB/Rel family of transcription factors is comprised of several structurally-related proteins that form homodimers and heterodimers and include p50/p105, p52/p100, RelA (p65), c-Rel/NF-κB. Members of this family are responsible for regulating over 150 target genes, including the expression of inflammatory cytokines, chemokines, immunoreceptors, and cell adhesion molecules. Because of this, NF-κB has often been called a "central mediator of the human immune response. Acting as dimers, these transcription factors bind to DNA sequences, collectively called κB, sites thereby regulating expression of target genes. In most cells, Rel/ NF-κB transcription complexes are present in an inactive form in the cytoplasm, bound to an inhibitor IκB. Certain stimuli result in the phosphorylation, ubiquitination and subsequent degradation of IκB proteins thereby enabling translocation of NF-κB into the nucleus. The most common Rel/NF-κB dimer in mammals contains p50-RelA (p50/ p65) heterodimers and is specifically called NF-κB. One of the target genes activated by NF-κB is that encoding IκBα. This feedback mechanism allows newly-synthesized IκBα to enter the nucleus, remove NF-κB from DNA and transport it back to the cytoplasm thereby restoring its inactive state. The importance of Rel/NF-κB transcription factors in human inflammation and certain diseases makes them attractive targets for potential therapeutics.

Usage

For research use only (RUO)

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Storage	Store the kit at -20°C temporarily.
Kit Components	Item Quantity Storage Transcription Factor Binding Assay Buffer (4X) 1 vial 4°C Transcription Factor Reagent A 1 vial -20°C Transcription Factor NF-κB (p50) Positive Control 1 vial -80°C Transcription Factor Antibody Binding Buffer (10X) 1 vial 4°C Transcription Factor NF-κB (human p50) Primary Antibody 1 vial -20°C Wash Buffer Concentrate (400X) 1 vial 4°C Tween 20 1 vial RT Transcription Factor NF-κB Specific Competitor dsDNA 1 vial -20°C Transcription Factor Goat Anti-Rabbit HRP Conjugate 1 vial -20°C Transcription Factor NF-κB 96-Well Strip Plate 1 plate 4°C 96-Well Cover Sheet 1 cover RT Transcription Factor Developing Solution 1 vial 4°C Transcription Factor Stop Solution 1 vial 4°C WARNING: This product is for laboratory research use only: not for administration to humans. Not for human or veterinary diagnostic or therapeutic use.

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