

## NF-κB (p65) Transcription Factor Assay Kit

Cat. No. Kit-0622 Lot. No. (See product label)

### SPECIFICATION

#### Product Overview

NF-κB (p65) 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**

Kit components may be stored at -20°C prior to use. For long term storage, the Positive Control should be thawed on ice, aliquoted at 20 µL/vial, and stored at -80°C. After use we recommend each kit component be stored according to the temperature listed below. This kit will perform as specified if stored as directed and used before the expiration date indicated on the outside of the box.

Item Storage

Transcription Factor Binding Assay Buffer (4X) 4°C

Transcription Factor Reagent A -20°C

Transcription Factor NF-kB (human p65) Positive Control -80°C

Transcription Factor Antibody Binding Buffer (10X) 4°C

Transcription Factor NF-kB (p65) Primary Antibody -20°C

Wash Buffer Concentrate (400X) RT

Polysorbate 20 RT

Transcription Factor NF-kB Competitor dsDNA -20°C

Transcription Factor Goat Anti-Rabbit HRP Conjugate -20°C

Transcription Factor NF-kB 96-Well Strip Plate 4°C

96-Well Cover Sheet RT

Transcription Factor Developing Solution 4°C

Transcription Factor Stop Solution RT

**Kit Components**

Transcription Factor Binding Assay Buffer (4X) 1 vial

Transcription Factor Reagent A 1 vial

Transcription Factor NF-kB (human p65) Positive Control 1 vial

Transcription Factor Antibody Binding Buffer (10X) 1 vial

Transcription Factor NF-kB (p65) Primary Antibody 1 vial

Wash Buffer Concentrate (400X) 1 vial

Polysorbate 20 1 vial

Transcription Factor NF-kB Competitor dsDNA 1 vial

Transcription Factor Goat Anti-Rabbit HRP Conjugate 1 vial

Transcription Factor NF-kB 96-Well Strip Plate 1 plate

96-Well Cover Sheet 1 cover

Transcription Factor Developing Solution 1 vial

Transcription Factor Stop Solution 1 vial

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