

Datasheet for KAA064**NFkB p50 ELISA Kit****Overview**

Description:	NFkB (P50) ELISA Kit - KAA064
Item No.:	KAA064
Size:	1 Kit
Applications:	ELISA
Reactivity:	Human

Product Details

Background:	The NF- κ B/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- κ B [1]. 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- κ B has often been called a 'central mediator of the human immune response' [2]. Acting as dimers, these transcription factors bind to DNA sequences, collectively called κ B, sites thereby regulating expression of target genes. In most cells, Rel/ NF- κ B transcription complexes are present in an inactive form in the cytoplasm, bound to an inhibitor I κ B. Certain stimuli result in the phosphorylation, ubiquitination and subsequent degradation of I κ B proteins thereby enabling translocation of NF- κ B into the nucleus [3]. The most common Rel/NF- κ B dimer in mammals contains p50-RelA (p50/p65) heterodimers and is specifically called NF- κ B. One of the target genes activated by NF- κ B is that encoding I κ B α . This feedback mechanism allows newly-synthesized I κ B α to enter the nucleus, remove NF- κ B from DNA and transport it back to the cytoplasm thereby restoring its inactive state. The importance of Rel/NF- κ B transcription factors in human inflammation and certain diseases makes them attractive targets for potential therapeutics [4-6].
Synonyms:	NF- κ B Transcription Factor Kit, p50 kit, EIA kit, NF kappaB ELISA Assay
Detection Kit Type:	ELISA Kit

Target Details

Reactivity:	Human
Relevant Links:	NF-κB (P50) ELISA Kit Protocol

Application Details

Tested Applications:	ELISA
Application Note:	Rockland's NF-kB (p50) Transcription Factor Assay is a non-radioactive, sensitive method for detecting specific transcription factor DNA binding activity in nuclear extracts and whole cell lysates. A 96 well enzyme-linked immunosorbent assay (ELISA) replaces the cumbersome radioactive electrophoretic mobility shift assay (EMSA). A specific double stranded DNA (dsDNA) sequence containing the NF-kB response element is immobilized onto the bottom of wells of a 96 well plate (see Figure 1 on page 4). NF-kB contained in a nuclear extract specifically binds to the NF-kB response element. NF-kB (p50) is detected by addition of a specific primary antibody directed against NF-kB (p50). A secondary antibody conjugated to HRP is added to provide a sensitive colorimetric readout at 450 nm. Rockland's NF-kB (p50) Transcription Factor Assay detects human NF-kB (p50). It will not cross-react with NF-kB (p65).
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:100
Other:	DOE: 2/28/2025

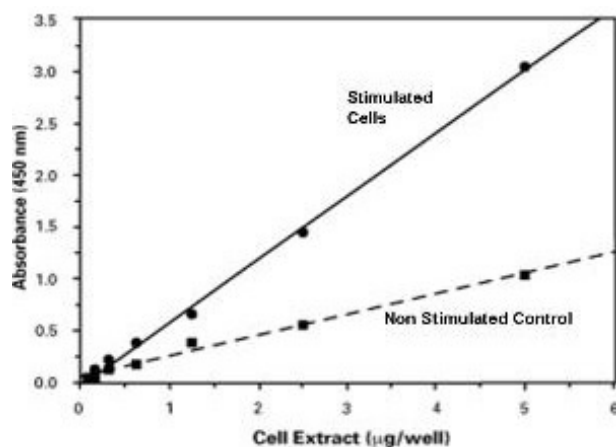
Formulation

Physical State:	n/a
Concentration:	1 Kit

Shipping & Handling

Shipping Condition:	Wet Ice
Storage Condition:	See kit insert for complete instructions.
Expiration:	See kit insert for complete instructions.

Images



ELISA

ELISA of Transcription Factor-Transcription factor assay absorbance of cell lysates isolated from stimulated (20 ng/mL TNFa for 30 min.) and non-stimulated HeLa cells demonstrating NF-κB (p50) activity.

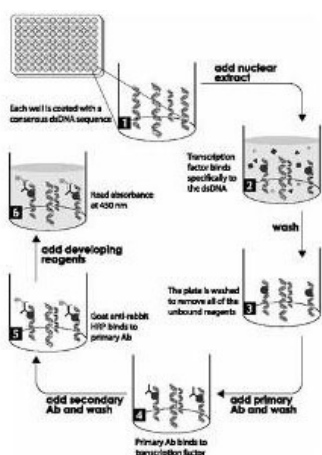
Kit Box

This product is assembled as a kit. See attached protocol or CofA for further details.



ELISA

Transcription Factor Binding Assay Schematic



ELISA

Sample Plate Format

	1	2	3	4	5	6	7	8	9	10	11	12
A	U1	U3	U9	U5	U17	U13	U25	U21	U33	U29	U41	U37
B	U2	U4	U10	U6	U18	U14	U26	U22	U34	U30	U42	U38
C	U3	U5	U11	U7	U19	U15	U27	U23	U35	U31	U43	U39
D	U4	U6	U12	U8	U20	U16	U28	U24	U36	U32	U44	U40
E	U5	U7	U13	U9	U21	U17	U29	U25	U37	U33	U45	U41
F	U6	U8	U14	U10	U22	U18	U30	U26	U38	U34	PC	PC
G	U7	U9	U15	U11	U23	U19	U31	U27	U39	U35	Blk	Blk
H	U8	U10	U16	U12	U24	U20	U32	U28	U40	U36	CI	CI

U1-U44 - Sample Wells
 NSB - Non-specific Binding Wells
 PC - Positive Control Wells
 Blk - Blank Wells
 CI - Competitive dsDNA Wells

Disclaimer

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