

# Phospho-NF- $\kappa$ B p65 (Ser536) (93H1) Rabbit mAb (Biotinylated)



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Hm Mk Pg	Endogenous	65	Rabbit IgG	#Q04206	5970

## Product Usage Information

### Application

Western Blotting

### Dilution

1:1000

## Storage

Supplied in 140 mM NaCl, 3 mM KCl, 10 mM sodium phosphate (pH 7.4) dibasic, 2 mM potassium phosphate monobasic, 2 mg/mL BSA, and 50% glycerol. Store at  $-20^{\circ}\text{C}$ . *Do not aliquot the antibody.*

## Specificity/Sensitivity

Phospho-NF- $\kappa$ B p65 (Ser536) (93H1) Rabbit mAb (Biotinylated) detects NF- $\kappa$ B p65 protein only when phosphorylated at Ser536. It does not cross-react with the p50 subunit or other related proteins.

## Species predicted to react based on 100% sequence homology

Dog

## Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser536 of human NF- $\kappa$ B p65 protein.

## Description

This Cell Signaling Technology (CST) antibody is conjugated to biotin under optimal conditions. The unconjugated Phospho-NF- $\kappa$ B p65 (Ser536) (93H1) Rabbit mAb #3033 reacts with human, mouse, rat, monkey, hamster, and pig phospho-NF- $\kappa$ B. CST expects that Phospho-NF- $\kappa$ B p65 (Ser536) (93H1) Rabbit mAb (Biotinylated) will also recognize phospho-NF- $\kappa$ B in these species.

## Background

Transcription factors of the nuclear factor  $\kappa$ B (NF- $\kappa$ B)/Rel family play a pivotal role in inflammatory and immune responses (1,2). There are five family members in mammals: RelA, c-Rel, RelB, NF- $\kappa$ B1 (p105/p50), and NF- $\kappa$ B2 (p100/p52). Both p105 and p100 are proteolytically processed by the proteasome to produce p50 and p52, respectively. Rel proteins bind p50 and p52 to form dimeric complexes that bind DNA and regulate transcription. In unstimulated cells, NF- $\kappa$ B is sequestered in the cytoplasm by I $\kappa$ B inhibitory proteins (3-5). NF- $\kappa$ B-activating agents can induce the phosphorylation of I $\kappa$ B proteins, targeting them for rapid degradation through the ubiquitin-proteasome pathway and releasing NF- $\kappa$ B to enter the nucleus where it regulates gene expression (6-8). NIK and IKK $\alpha$  (IKK1) regulate the phosphorylation and processing of NF- $\kappa$ B2 (p100) to produce p52, which translocates to the nucleus (9-11).

## Background References

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## Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

## Western Blot Buffer

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween $\text{\textcircled{R}}$  20 at  $4^{\circ}\text{C}$  with gentle shaking, overnight.

## Applications Key

**W:** Western Blotting

## Cross-Reactivity Key

**H:** Human **M:** Mouse **R:** Rat **Hm:** Hamster **Mk:** Monkey **Pg:** Pig

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