

**Phospho-NF- $\kappa$ B p65 (Ser276) Antibody**

**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-P	H M R	Endogenous	65-80	Rabbit	#Q04206	5970

**Product Usage Information****Application**

Western Blotting  
Immunohistochemistry (Paraffin)

**Dilution**

1:1000  
1:50

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

Phospho-NF- $\kappa$ B p65 (Ser276) Antibody detects NF- $\kappa$ B p65 only when phosphorylated at Ser276. It also cross-reacts with the homologous phosphorylated residues in c-Rel (Ser267) and NF- $\kappa$ B1 p105/p50 (Ser337).

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

Bovine, Dog, Pig

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser276 of human NF- $\kappa$ B p65. Antibodies are purified by protein A and peptide affinity chromatography.

**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).

Phosphorylation of NF- $\kappa$ B p65 by PKA and/or MSK1 at Ser276 allows for increased interaction with the transcriptional coactivator p300/CBP to further enhance the transcriptional activity of this transcription factor (12-14)

**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@ 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat

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