

PRODUCT INFORMATION

NF-κB (p50) (human, recombinant)

Item No. 10009818

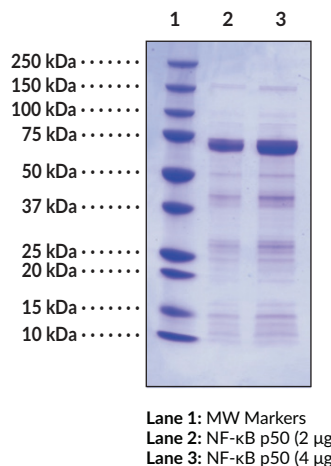
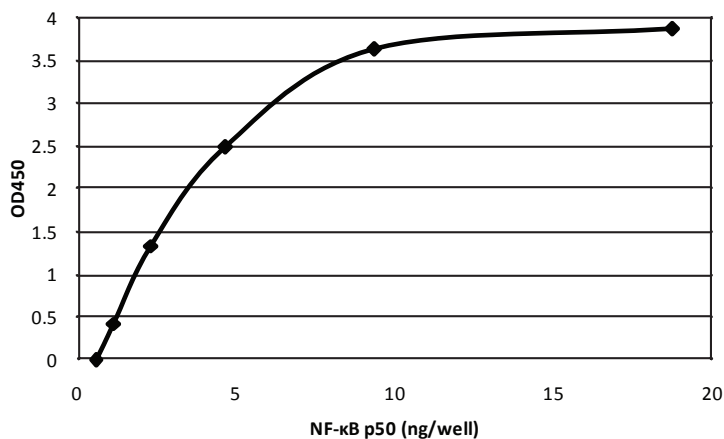
Overview and Properties

Synonyms:	Nuclear Factor-κB (p50), NF-κB1
Amino Acids:	1-433 (full-length)
Uniprot No.:	P19838
Source:	Human recombinant GST-tagged protein expressed in <i>E. coli</i>
Molecular Weight:	74.5 kDa (p50-GST fusion)
Storage:	-80°C (as supplied)
Stability:	≥1 year
Purity:	batch specific (≥55% estimated by SDS-PAGE)
Supplied in:	PBS, pH 7.4, containing 5 mM DTT and 20% glycerol
Protein	
Concentration:	batch specific mg/ml

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Images

The graph to the bottom left shows the DNA binding activity of NF-κB (p50) using Cayman's NF-κB (human p50) Transcription Factor Assay Kit (Item No. 10006912). Please note that addition of either DTT or Cayman's transcription factor assay kit's reagent A will lead to a decrease in NF-κB (p50) signal. The purity of NF-κB (p50) determined by SDS-PAGE is shown below (right).



Representative gel image shown; actual purity may vary between each batch.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

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Description

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), and 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 10 base pair DNA sequences, collectively called κ B sites thereby regulating expression of target genes. The most common Rel/NF- κ B dimer in mammals contains p50-RelA (p50/p65) heterodimers and is called NF- κ B. The importance of Rel/NF- κ B transcription factors in human inflammation and certain diseases makes them attractive targets for potential therapeutics.³⁻⁵

References

1. Gilmore, T.D. *Oncogene* **18**, 6842-6844 (1999).
2. Pahl, H.L. *Oncogene* **18**, 6853-6866 (1999).
3. Gilroy, D.W., Lawrence, T., Perretti, M., *et al.* *Nature Reviews* **3**, 401-416 (2004).
4. Maeda, S., Hsu, L.-C., Liu, H., *et al.* *Science* **307**, 734-738 (2005).
5. Arkan, M.C., Hevener, A.L., Greten, F.R., *et al.* *Nature Med.* **11**(2), 191-198 (2005).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM