

Product datasheet for **TP320780L**

NF-kB p65 (RELA) (NM_021975) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human v-rel reticuloendotheliosis viral oncogene homolog A (avian) (RELA), transcript variant 1, 1 mg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC220780 representing NM_021975 Red =Cloning site Green =Tags(s)

MDELFP LIFFAEP AQASGPYVEIIEQPKQRGMRFYKCEGRSAGSIPGERSTDTTKTHPTIKINGYTGPG
TVRISLVTKDPPHRPHPHL VGKDCRDGFYEALCPDRCIHSFQNLGIQCVKKRDLEQAISQRIQTNNNP
FQVPIEEQRGDYDLNAVRLCFQVTVRDPSGRPLRPPVLSHPIDNRAPNTAELKICRVNRNSGSLGGD
EIFLLCDKVQKEDIEVYFTGPGWEARGSFQADVHRQVAIVFRTPPYADPSLQAPVRVSMQLRRPSDREL
SEPMEFQYLPDTDDRHRIEEKRKRTYETFKSIMKKSPFSGPTDRPPRRRIAVPSRSSASVPKPAPQPYP
FTSSLSTINYDEFPTMVFPSGQISQASALAPAPPQVLPQAPAPAPAMVSALAQAPAPVPLAPGPPQA
VAPPAPKPTQAGEGTLSEALLQLQFDDLDL GALLGNSTDP AVFTDLASVDNSEFQQLLNQGIPVAPHTTE
PMLMEYPEAITRLVTGAQRPPDPAPAPL GAPGLPNGLLSGDEDFSSIADMDFSALLSQISS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Predicted MW:	60 kDa
Concentration:	>0.1 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol



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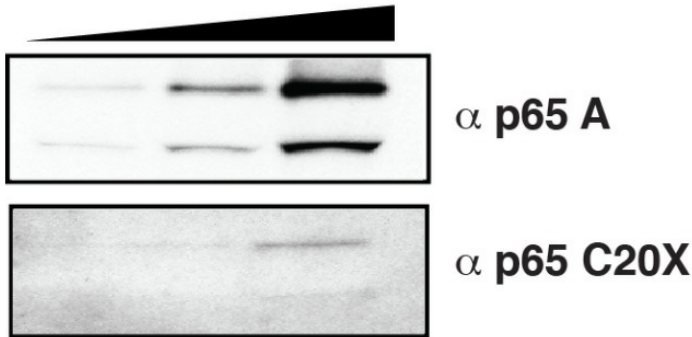
Bioactivity:	<p>RELA Activity Verified in a DNA-binding Assay: RELA activity was measured in a colorimetric DNA-binding assay. Double-stranded oligonucleotide containing the RELA consensus DNA-binding sequence was incubated with dilutions of the purified RELA protein. RELA bound to the oligo was captured onto the surface of a microtiter plate and after washing, bound RELA was detected with an anti-RELA primary antibody followed by an HRP-labeled secondary antibody. After initial color development, the reaction was quenched and the color intensity was measured at 450nm.</p> <p>ELISA binding assay (PMID: 25584020) WB positive control (PMID: 25853889) EMSA assay (PMID: 25853889) Binding assay (PMID: 26561547) Pull-down assay (PMID: 26984196)</p>
Preparation:	<p>Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.</p>
Note:	<p>For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.</p>
Storage:	<p>Store at -80°C.</p>
Stability:	<p>Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.</p>
RefSeq:	<p>NP_068810</p>
Locus ID:	<p>5970</p>
UniProt ID:	<p>Q04206</p>
RefSeq Size:	<p>1760</p>
Cytogenetics:	<p>11q13.1</p>
RefSeq ORF:	<p>1653</p>
Synonyms:	<p>CMCU; NFKB3; p65</p>
Summary:	<p>NF-kappa-B is a ubiquitous transcription factor involved in several biological processes. It is held in the cytoplasm in an inactive state by specific inhibitors. Upon degradation of the inhibitor, NF-kappa-B moves to the nucleus and activates transcription of specific genes. NF-kappa-B is composed of NFKB1 or NFKB2 bound to either REL, RELA, or RELB. The most abundant form of NF-kappa-B is NFKB1 complexed with the product of this gene, RELA. Four transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2011]</p>
Protein Families:	<p>Druggable Genome, Transcription Factors</p>

Protein Pathways:

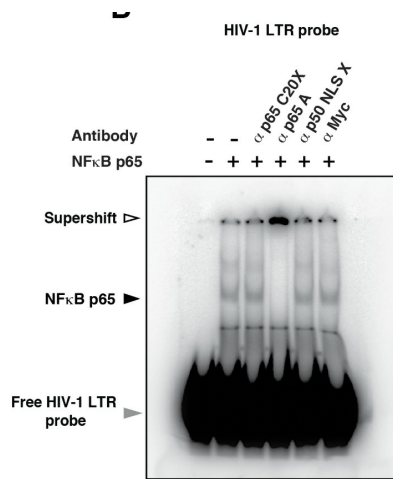
Acute myeloid leukemia, Adipocytokine signaling pathway, Apoptosis, B cell receptor signaling pathway, Chemokine signaling pathway, Chronic myeloid leukemia, Cytosolic DNA-sensing pathway, Epithelial cell signaling in Helicobacter pylori infection, MAPK signaling pathway, Neurotrophin signaling pathway, NOD-like receptor signaling pathway, Pancreatic cancer, Pathways in cancer, Prostate cancer, RIG-I-like receptor signaling pathway, Small cell lung cancer, T cell receptor signaling pathway, Toll-like receptor signaling pathway

Product images:

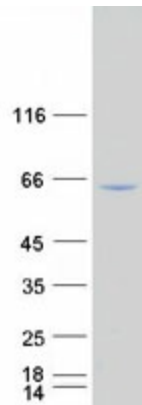
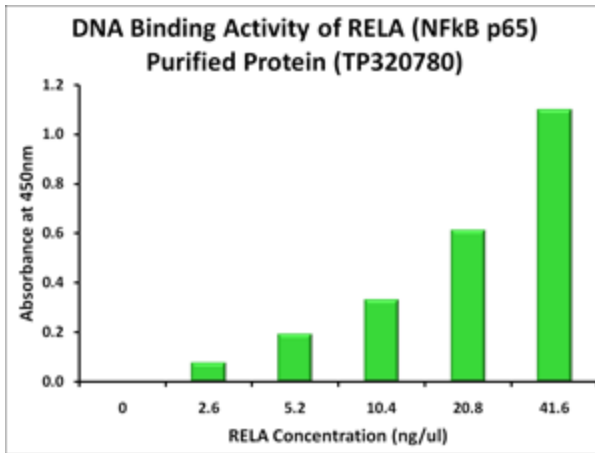
Recombinant NFκB p65



Western blot analysis of the recombinant NFκBp65 preparation (OriGene [TP320780]) to check the specificity of two anti-NFκBp65 antibodies: A and C20X. NFκBp65 (25, 50, and 100 ng) was resolved on a NuPAGE 4 - 12% PAGE in MOPs buffer and subjected to Western blot. Figure cited from PLoS ONE, PMID: 25853889



EMSA examines NFκBp65 DNA binding activity. HIV-1 LTR DNA probe was incubated with 100 ng of purified NFκBp65 (OriGene [TP320780]), and the NFκBp65-DNA complexes were resolved on a 6% non-denaturing polyacrylamide/bisacrylamide gel. NFκBp65-DNA complexes were super-shifted by the addition of anti-NFκBp65 antibody. Anti-NFκBp50 antibody and anti-Myc IgG served as controls. The black arrows indicate the position of the NFκBp65-DNA complex; the grey arrow indicates free HIV-1 LTR DNA probe. The white arrows show the position of the complexes in the presence of the antibody. Figure cited from PLoS ONE, PMID: 25853889



Coomassie blue staining of purified RELA protein (Cat# [TP320780]). The protein was produced from HEK293T cells transfected with RELA cDNA clone (Cat# [RC220780]) using MegaTran 2.0 (Cat# [TT210002]).