

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

Product datasheet for TP320780M

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, 100 μg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC220780 representing NM_021975 Red=Cloning site Green=Tags(s)
	MDELFPLIFPAEPAQASGPYVEIIEQPKQRGMRFRYKCEGRSAGSIPGERSTDTTKTHPTIKINGYTGPG TVRISLVTKDPPHRPHPHELVGKDCRDGFYEAELCPDRCIHSFQNLGIQCVKKRDLEQAISQRIQTNNNP FQVPIEEQRGDYDLNAVRLCFQVTVRDPSGRPLRLPPVLSHPIFDNRAPNTAELKICRVNRNSGSCLGGD EIFLLCDKVQKEDIEVYFTGPGWEARGSFSQADVHRQVAIVFRTPPYADPSLQAPVRVSMQLRRPSDREL SEPMEFQYLPDTDDRHRIEEKRKRTYETFKSIMKKSPFSGPTDPRPPPRRIAVPSRSSASVPKPAPQPYP FTSSLSTINYDEFPTMVFPSGQISQASALAPAPPQVLPQAPAPAPAPAMVSALAQAPAPVPVLAPGPPQA VAPPAPKPTQAGEGTLSEALLQLQFDDEDLGALLGNSTDPAVFTDLASVDNSEFQQLLNQGIPVAPHTTE PMLMEYPEAITRLVTGAQRPPDPAPAPLGAPGLPNGLLSGDEDFSSIADMDFSALLSQISS
	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



This product is to be used for laboratory only. Not for diagnostic or therapeutic use. ©2023 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

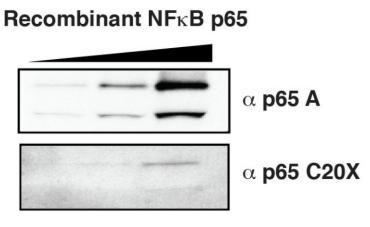
	NF-kB p65 (RELA) (NM_021975) Human Recombinant Protein – TP320780M
Bioactivity:	RELA Activity Verified in a DNA-binding Assay: RELA activity was measured in a colorimetric DNA-binding assay. Double-stranded oligonucleotide containing the RELA consensus DNA- binding sequence was incubated with dilutions 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. ELISA binding assay (PMID: <u>25584020</u>) WB positive control (PMID: <u>25853889</u>) EMSA assay (PMID: <u>26561547</u>) Pull-down assay (PMID: <u>26984196</u>)
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	<u>NP 068810</u>
Locus ID:	5970
UniProt ID:	<u>Q04206</u>
RefSeq Size:	1760
Cytogenetics:	11q13.1
RefSeq ORF:	1653
Synonyms:	CMCU; NFKB3; p65
Summary:	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]
Protein Families	

This product is to be used for laboratory only. Not for diagnostic or therapeutic use. ©2023 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

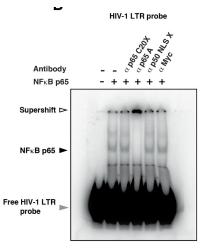
STATES ORIGENE NF-kB p65 (RELA) (NM_021975) Human Recombinant Protein – TP320780M

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:

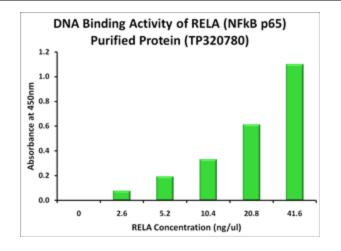


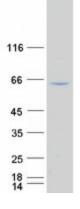
Western blot analysis of the recombinant NFkBp65 preparation (OriGene [TP320780]) to check the specificity of two anti-NFkBp65 antibodies: A and C20X. NFkBp65 (25, 50, and 100 ng) was resolved on a NuPAGE 4 - 12% PAGE in MOPs buffer and subjected to Western blot. Figure cited from PLoS ONE, PMID: 25853889



EMSA examines NFkBp65 DNA binding activity. HIV-1 LTR DNA probe was incubated with 100 ng of purified NFkBp65 (OriGene [TP320780]), and the NFkBp65-DNA complexes were resolved on a 6% non-denaturing polyacrylamide/bisacrylamide gel. NFkBp65-DNA complexes were super-shifted by the addition of anti-NFkBp65 antibody. Anti-NFkBp50 antibody and anti-Myc IgG served as controls. The black arrows indicate the position of the NFkBp65-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

This product is to be used for laboratory only. Not for diagnostic or therapeutic use. ©2023 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US





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]).

This product is to be used for laboratory only. Not for diagnostic or therapeutic use. ©2023 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US