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NF-kB

National Cancer Institute

Source

National Cancer Institute. *NF-kB*. NCI Thesaurus. Code C17380.

NF-kB is a heterodimer complex of two DNA-binding subunits from two families of ubiquitous, inducible, nuclear transcription activators involved in cytokine-induced activation of gene expression. NFKB1 or NFKB2 is bound to REL, RELA, or RELB to form the NF-kB complex. NF-kB is inhibited by IκB proteins (NFKBIA or NFKBIB), which inactivate NF-kB by trapping it in the cytoplasm. Phosphorylation of IκB by kinases (IKBKA or IKBKB) marks them for ubiquitination, allowing NF-kB translocation to the nucleus and DNA binding at kappa-B transcription enhancer motifs. In B-lymphocytes, NF-kB binds to the immunoglobulin kappa light chain enhancer and in T-lymphocytes it binds to enhancers in virally infected cells, including HIV. (from OMIM 164011, 164012, 164910, 164014, 604758, and NCI)