



### ***DB035: NFκB p50 (C20)***

#### **Background:**

Members of the rel/NFκB family of transcription factors are involved in the regulation of cellular responses, such as growth, development, and the inflammatory response. They share a structural motif known as the rel homology region (RHR), the C-terminal one third of which mediates protein dimerization (2, 6, 8). Complexes of p50 (NF-κB1) or p52 (NF-κB2) are generated through the processing of p105 and p100 precursors, respectively. These are usually associated with members of the Rel family (p65, c-Rel, Rel B). The homo- and heterodimer formed through combinations of NFκB/Rel proteins bind distinct κB sites to regulate the transcription of different genes (7, 9). In resting cells, NFκB is retained in the cytoplasm bound to inhibitory proteins of the IκB family. Degradation of IκB proteins occurs with cell activation, via a variety of signals, including inflammatory cytokines and bacterial lipopolysaccharides (LPS) as well as oxidative and fluid mechanical stress. This results in nuclear translocation of NFκB and the transcriptional gene activation of proinflammatory genes (1, 9). It has been suggested that NFκB plays a role in the development of numerous pathological states. Activation of NFκB induces gene programs leading to transcription of factors that promote inflammation, such as leukocyte adhesion molecules, cytokines, and chemokines. It is also thought that there are some substances with possible anti-inflammatory effects that are also NFκB regulated. There is some evidence indicating NFκB as a key factor in the pathophysiology of cardiac ischemia-reperfusion injury as well as the development of insulin dependent Diabetes Mellitus (4, 3).

#### **Origin:**

NFκB p50 is provided as an affinity purified rabbit polyclonal antibody, raised against a peptide mapping to the carboxy terminus of human NFκB p50.

#### **Product Details:**

Each vial contains 200 µg/ml of affinity-purified rabbit IgG, NFκB p50 (C20) *DB035*, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

#### **Competition Studies:**

A blocking peptide is also available, *DB035P*, for use in competition studies. Each vial contains 100 µg of peptide in 0.5 ml PBS with 0.1% sodium azide and 100 µg BSA.

#### **Specificity:**

NFκB p50 (C20) *DB035* reacts with NFκB p50 and p105 of mouse, rat, and human origin by western blotting, immunoprecipitation and immunohistochemistry. Western blotting starting dilution: 1:400.

#### **Storage:**

Store this product at 4° C, do not freeze. The product is stable for one year from the date of shipment.

#### **References:**

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