



## ***DB075: I $\kappa$ B- $\alpha$ (C21)***

### **Background:**

The NF $\kappa$ B family of transcription factors is sequestered in the cytoplasm by I $\kappa$ B inhibitory proteins (1&2). I $\kappa$ B- $\alpha$  and I $\kappa$ B- $\beta$  are the two members of this family most often cited for their regulatory function of NF $\kappa$ B directed gene expression. The interaction of NF $\kappa$ B dimers with I $\kappa$ B proteins keeps the complex in the cytoplasm, but upon cellular stimulation the I $\kappa$ B proteins are phosphorylated and subsequently degraded (1&3). The free NF $\kappa$ B can now enter the nucleus and induce gene expression of proteins critical for cellular proliferation, differentiation, or apoptosis (1-4).

### **Origin:**

I $\kappa$ B- $\alpha$  (C21) is provided as an affinity purified rabbit polyclonal antibody, raised against a peptide mapping to the carboxy terminal domain of human I $\kappa$ B- $\alpha$ .

### **Product Details:**

Each vial contains 200  $\mu$ g/ml of affinity purified rabbit IgG, I $\kappa$ B- $\alpha$  (C21) DB075, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

### **Competition Studies:**

A blocking peptide is also available, DB075P, for use in competition studies. Each vial contains 100  $\mu$ g of peptide in 0.5 ml PBS with 0.1% sodium azide and 100  $\mu$ g BSA.

### **Specificity:**

I $\kappa$ B- $\alpha$  (C21) is recommended to detect mouse, rat and human I $\kappa$ B- $\alpha$  by western blotting, immunoprecipitation, and immunohistochemistry (including paraffin-embedded tissue). Recommended western blotting starting dilution 1:200.

### **Storage:**

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

### **References:**

1. Schmitz ML, Baeuerle PA. 1995. Multi-step activation of NF-kappa B/Rel transcription factors. Immunobiology 193(2-4):116-127.
2. Tran K, Merika M, Thanos D. 1997. Distinct functional properties of IkappaB alpha and IkappaB beta. Mol Cell Biol 17(9):5386-5399.
3. Tanaka K, Kawakami T, Tateishi K, Yashiroda H, Chiba T. 2001. Control of IkappaBalphaproteolysis by the ubiquitin-proteasome pathway. Biochimie 83(3-4):351-356.
4. Chen CG, Malliaros J, Katerelos M, d'Apice AJ, Pearse MJ. Inhibition of NF-kappaB activation by a dominant-negative mutant of IkappaBalphaproteolysis. Mol. Immunology 33(1):57-61.