Docket #: S00-130

AKT Plasmid

The family of protein kinases called Akt, protein kinase B (PKB), or related to A and C kinase (RAC) have been implicated in numerous biological processes including adipocyte and muscle differentiation, glycogen synthesis, glucose uptake, apoptosis and cellular proliferation. There are 3 known isoforms of this enzyme in mammalian cells. Akt1 and 2 contain a key regulatory serine phosphorylation site in the carboxy-terminal region of the protein. However, the reported sequence of the rat Akt3 protein differed significantly from this in that it lacked 25 amino acids in the C-terminal region, including this key regulatory serine phosphorylation site. In the presenet studies we show that the deduced sequence of human Akt3 contains this serine and that it is phosphorylated in response to insulin. These results indicate that huamn Akt3 is regulated similarly to Akt1 and Akt2.

Publications

- Publication: BBRC, Vol. 257, No. 3, April 21, 1999, pp. 906-910

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