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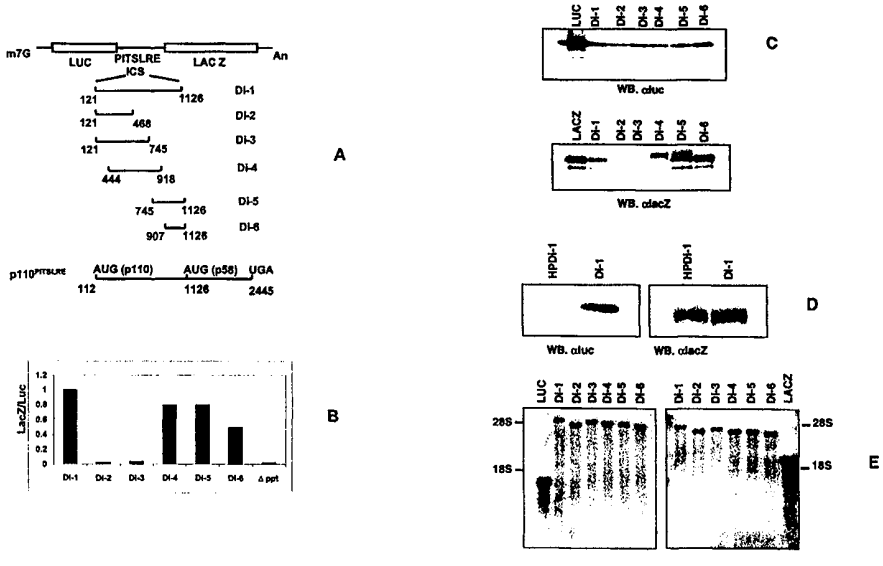
(54) Title: INTERNAL RIBOSOME ENTRY SITE (IRES), VECTOR CONTAINING SAME AND USES THEREOF




(57) Abstract

The current invention relates to two isoforms, p110 and p58 of PITSLRE protein kinase, which can be translated from the same p110 (α2–2) mRNA by an internal ribosome entry process. This means that p110 and p58, two proteins with putative different functions, are translated from a single mRNA species by using two AUGs within the same reading frame. These two proteins share the 439 C–terminal amino acids that contain the kinase domain. The IRES in the polycistronic p110 mRNA is the first IRES completely localized in the coding region of a cellular mRNA. Moreover, it was unexpectedly found that the IRES element is cell cycle regulated. Translation of p58 occurs in the G2/M stage of the cell cycle.