

P001 Assaying the presence and polyadenylation state of H1^o mRNA in mouse oocytes and early embryos

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H1 is the most heterogeneous histone and it has several subtypes such as H1^o. Histone H1^o is a differentiated dependent linker histone.

The possible involvement of H1^o in the vital cellular processes, has made this protein the target of a lot of research.

There are contradictory evidences about presence of H1^o protein in mouse GV, MII oocytes and early embryos. The length of poly A tail is an important parameter for translation, so these cells were investigated to recognize the H1^o mRNA presence and the length of its poly A tail. RT-PCR analysis showed that the oocytes and early embryos has H1^o mRNA, but the length of poly A tail differs in these cells. DNA sequencing and RACE-PAT (Rapid amplification of cDNA ends-poly A test) analysis were used for detection of the differences.

The length of poly A tail in the oocytes is short and after fertilization the population of H1^o mRNA with long poly A tail increases (about 500 nucleotides). It proposes that H1^o mRNA after fertilization can be translated.