

P0416

Characterization and Localization of the Murine nm23-M5 in Mouse Testis

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Nucleoside diphosphate kinases (NDPKs) are ubiquitous enzymes involved in numerous regulatory processes associated with transcriptional regulation, cell proliferation, development, and differentiation. In this study, we examined characterization and localization of the nm23-M5 in mouse testis by Western blotting, immunohistochemical and confocal imaging study using specific antibodies raised against nm23-M5. Western blot analysis that nm23-M5 protein showed highly and specifically expression in testis, more than in other tissues, such as ovary, brain, heart, and kidney. nm23-M5 was located in the neighboring lumen of seminiferous tubules. This distribution contrasts with that of nm23-M5, which are specifically found in spermatogonia and early spermatocytes. We believe that the murine nm23-M5 plays an important role involved in spermiogenesis and flagellar movement.

Key words: *nm23-M5, Spermiogenesis, Testis*