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JOURNAL ARTICLE

Identification and isolation of epididymal luminal proteins of the mouse

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Proteins of mouse cauda epididymal fluid were analyzed by polyacrylamide gel electrophoresis. Fluid expressed from the cauda epididymidis and samples obtained by micropuncture of the epididymal lumen showed very similar patterns with respect to the major proteins they contained, with the exception of a small amount of serum albumin found in expressed caudal fluid. Eight prominent peptides present in both micropuncture fluid and expressed caudal epididymal fluid were selected for further study, and were designated CP 47, 42, 35, 29, 27, 25, 18, and 13 according to their mobility. Six of these were never detected in serum. Periodic acid-Schiff staining indicated that at least three were glycoproteins. The epididymal proteins were purified by preparative polyacrylamide gel electrophoresis and electroelution. Upon re-electrophoresis, the individual purified peptides comigrated with the corresponding bands in whole epididymal fluid, and no additional bands were detected, indicating that the proteins were purified to a high degree of homogeneity. Several of the mouse epididymal peptides resemble in their mobility proteins identified previously in other species, most notably the widely studied 33 Kd and 16 to 18 Kd proteins detected in the rat.