Studies on mMANN2B2: a mouse homologue of the \( \alpha \)-D-mannosidase specifically expressed in the male reproductive system.

(雄性生殖系に特異的なマウスの\( \alpha \)-D-マンノシダーゼ: mMANN2B2に関する研究)

2000

筑波大学大学院博士課程医学研究科

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Introduction

Materials and methods

Amplification of mMAN2B2 mRNA by the reverse transcriptase-polymerase chain reaction.

Isolation of a cDNA clone encoding mMAN2B2 from the mouse testis cDNA library.

Isolation of gene clone encoding mMAN2B2 from the mouse genomic library.

Chromosome mapping of the mMAN2B2 gene.

In situ hybridization.

Oligonucleotide probes.


Preparation of antisera.

Preparation of monospecific antibody.

Immunohistochemical analysis of mouse testis.

Immunocytochemical analysis of mouse sperm.

In vitro fertilization.

Results

Cloning of cDNA encoding the mMAN2B2.

Cloning and characterization of the mMAN2B2 gene.

Distribution of mRNA encoding the mMAN2B2.

Localization of mMAN2B2 during spermatogenesis.

Effect of the anti mMAN2B2 antibody on the fertilization rate.

Discussion