

1/A
2611 (13)
1000

Studies on mMAN2B2 : a mouse homologue of
the α -D-mannosidase specifically expressed in
the male reproductive system.

(雄性生殖系に特異的なマウスの α -D-マンノシダーゼ : mMAN2B2 に関する
研究)

2000

筑波大学大学院博士課程医学研究科

平 本 真 介

寄	贈
平 本 真 介 氏	平成 年 月 日

01301640

<i>Introduction</i>	1
<i>Materials and methods</i>	5
Amplification of mMAN2B2 mRNA by the reverse transcriptase-polymerase chain reaction.	5
Isolation of a cDNA clone encoding mMAN2B2 from the mouse testis cDNA library.	5
Isolation of gene clone encoding mMAN2B2 from the mouse genomic library.	6
Chromosome mapping of the mMAN2B2 gene.	7
<i>In situ</i> hybridization.	7
Oligonucleotide probes.	8
Construction of bacterial expression vector pGEX-2T and expression of recombinant GST-mMAN2B2 fusion protein.	9
Preparation of antiserum.	10
Preparation of monospecific antibody.	10
Immunohistochemical analysis of mouse testis.	11
Immunocytochemical analysis of mouse sperm.	13
<i>in vitro</i> fertilization.	14
<i>Results</i>	16
Cloning of cDNA encoding the mMAN2B2.	16
Cloning and characterization of the mMAN2B2 gene.	18
Distribution of mRNA encoding the mMAN2B2.	18
Localization of mMAN2B2 during spermatogenesis.	20
Effect of the anti mMAN2B2 antibody on the fertilization rate.	21
<i>Discussion</i>	22

<i>Conclusion</i>	29
<i>References</i>	31
<i>Acknowledgement</i>	45