

Abcb4-KO(FVB)

品系全名	FVB- <i>Abcb4</i> ^{em15moc}
目录号	NM-KO-200584
品系状态	活体

基因信息

基因名 Abcb4	基因曾用名	Mdr2; Pgy2; Pgy-2; mdr-2
	染色体位置	5
	NCBI ID	18670
	MGI ID	97569
	Ensembl ID	ENSMUSG00000042476
	人类同源基因	ABCB4

品系描述

敲除Abcb4基因exon 3-4, 建立Abcb4基因敲除小鼠模型。

应用领域: 胆汁等疾病相关研究

*使用本品系发表的文献需注明: Abcb4-KO(FVB) mice (Cat. NO. NM-KO-200584) were purchased from Shanghai Model Organisms Center, Inc..

疾病预测

胆囊炎 Cholecystitis	近似模型的表型	MGI:3840644
	参考文献	Lammert F, Wang DQ, Hillebrandt S, Geier A, Fickert P, Trauner M, Matern S, Paigen B, Carey MC, Spontaneous cholecysto- and hepatolithiasis in Mdr2 ^{-/-} mice: a model for low phospholipid-associated cholelithiasis. Hepatology. 2004 Jan;39(1):117-28

<p style="text-align: center;">胆汁淤积 Cholestasis</p>	<p>近似模型的表型 MGI:5526018</p> <p>参考文献 Hochrath K, Ehnert S, Ackert-Bicknell CL, Lau Y, Schmid A, Krawczyk M, Hengstler JG, Dunn J, Hiththetiya K, Rathkolb B, Micklich K, Hans W, Fuchs H, Gailus-Durner V, Wolf E, de Angelis MH, Dooley S, Paigen B, Wildemann B, Lammert F, Nussler AK, Modeling hepatic osteodystrophy in Abcb4 deficient mice. Bone. 2013 Aug;55(2):501-11</p>
<p style="text-align: center;">肝内胆汁淤积 Intrahepatic Cholestasis</p>	<p>近似模型的表型 MGI:3694478</p> <p>参考文献 Li Z, Agellon LB, Vance DE, The role of phosphatidylethanolamine methyltransferase in a mouse model of intrahepatic cholestasis. Biochim Biophys Acta. 2011 Apr;1811(4):278-83</p>
<p style="text-align: center;">肝细胞癌 Hepatocellular Carcinoma</p>	<p>近似模型的表型 MGI:2653844</p> <p>参考文献 Mauad TH, van Nieuwkerk CM, Dingemans KP, Smit JJ, Schinkel AH, Notenboom RG, van den Bergh Weerman MA, Verkruisen RP, Groen AK, Oude Elferink RP, van der Valk MA, Borst P, Offerhaus GJ, Mice with homozygous disruption of the mdr2 P-glycoprotein gene. A novel animal model for studies of nonsuppurative inflammatory cholangitis and hepatocarcinogenesis. Am J Pathol. 1994 Nov;145(5):1237-45</p>
<p style="text-align: center;">原发性硬化性胆管炎 Primary Sclerosing Cholangitis</p>	<p>近似模型的表型 MGI:5618431</p> <p>参考文献 Strack I, Schulte S, Varnholt H, Schievenbusch S, Tox U, Wendland K, Steffen HM, Drebber U, Dienes HP, Odenthal M, beta-Adrenoceptor blockade in sclerosing cholangitis of Mdr2 knockout mice: antifibrotic effects in a model of nonsinusoidal fibrosis. Lab Invest. 2011 Feb;91(2):252-61</p>

验证数据

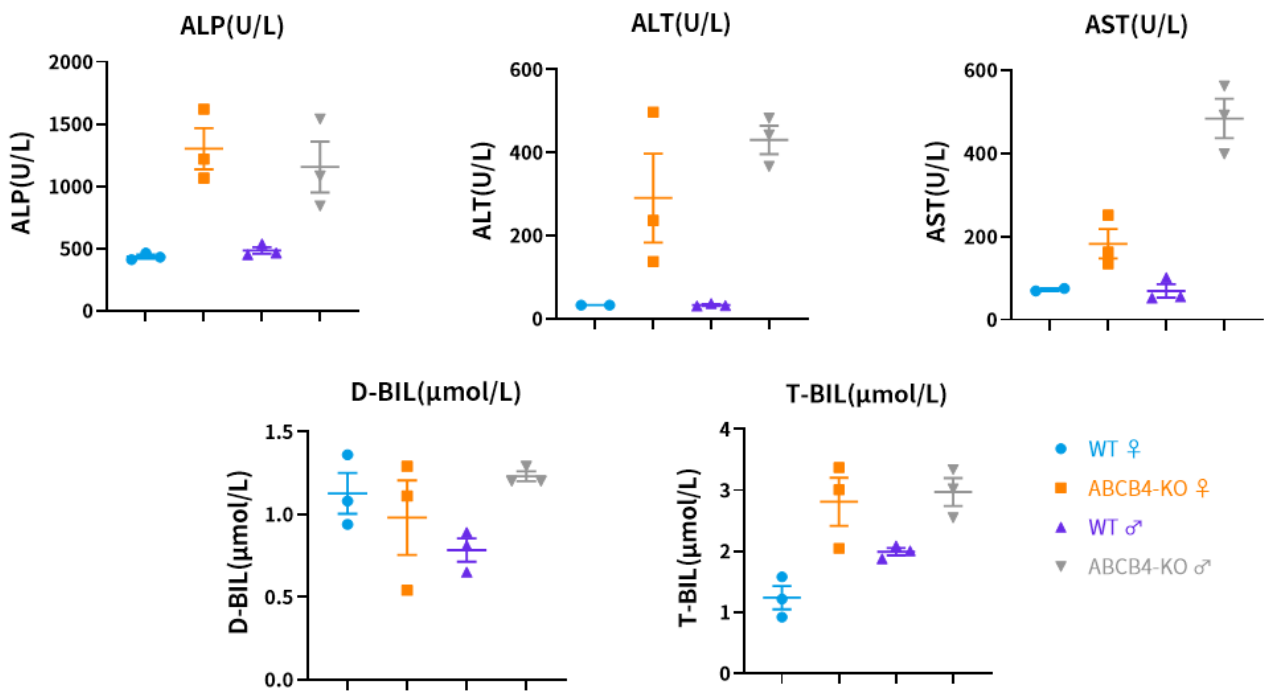


Fig1. Serum biochemistry of Abcb4-KO mice (n=3 female and 3 male).

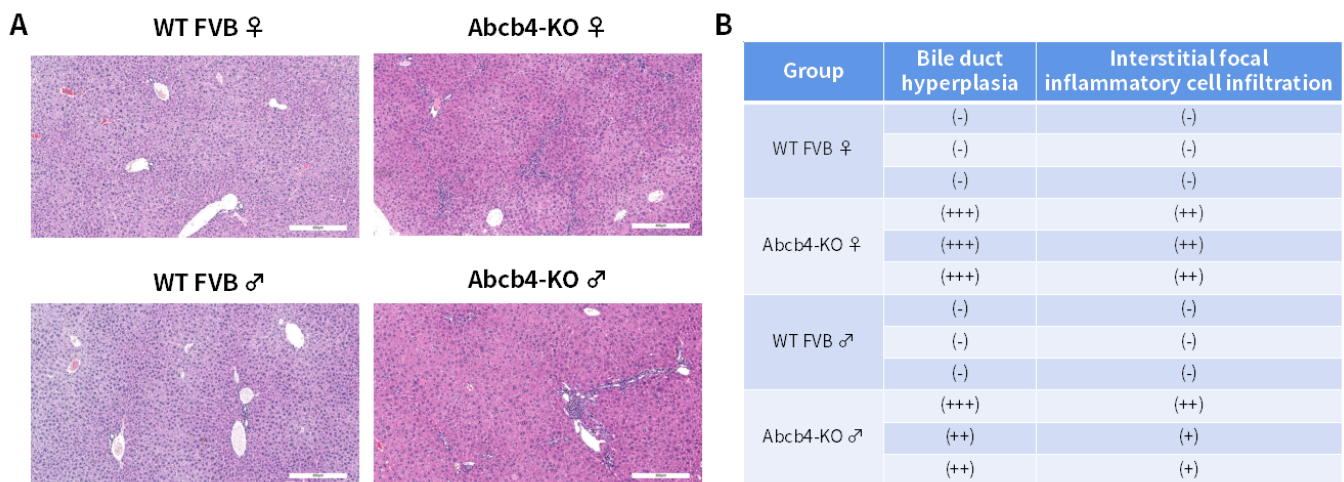


Fig2. Significant bile duct hyperplasia and interstitial focal cell infiltration were observed in the liver of Abcb4-KO mice.

(A) Liver were collected from FVB wild-type (+/+) and Abcb4-KO mice, and analyzed by HE staining. (B) Pathological analysis of the liver in Abcb4-KO mice.

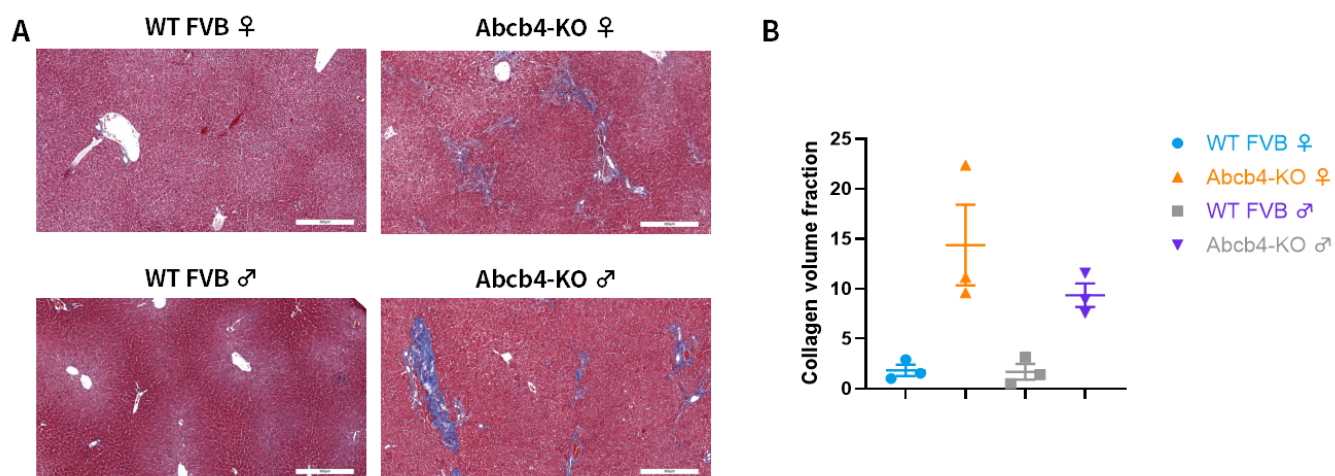


Fig3. Collagen fiber hyperplasia were observed in the liver of Abcb4-KO mice.

(A) Liver were collected from FVB wild-type (+/+) and Abcb4-KO mice, and analyzed by Masson staining. (B) Quantification of the Collagen volume fraction (CVF) .