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In healthy mammals, maturation of B cells expressing heavy (H) chain immunoglobulin (Ig) without light (L) chain is prevented by chaperone association of the H chain in the endoplasmic reticulum. Camelids are an exception, expressing homodimeric IgGs, an antibody type that to date has not been found in mice or humans. In camelids, immunization with viral epitopes generates high af□nity H chain–only antibodies, which, because of their smaller size, recognize clefts and protrusions not readily distinguished by typical antibodies. Developmental processes leading to H chain antibody expression are unknown. We show that $L^{-/-}$ ($\kappa^{-/-}\lambda^{-/-}$-de□cient) mice, in which conventional B cell development is blocked at

CORRESPONDENCE
Ma ia e B gge a :
a ia e.b gge a @bb c.
ac.

A : BC , B ; B , ; C, ; D A, D A; , ; , ; , ; CD,

JE

( ). , −/− , - CD5+ B , −/− . A −/− , , , (17).

H chain transcripts lacking C_H1 are generated in L−/− and normal mice

−/− - C , C_H2

JEM

, B220 /+ ,
,
- . C (. 4 D)
B220 /+ −/− (D2) +.
B220+ (. 4 C, D3 = 2) -
- - .
+ B −/− ,
,
(CD138),
, B220 (22).
(3) . 4 - C -
D - -Cμ2-Cμ3 ,
(. 1).

Allelic exclusion and V_H gene selection is maintained

,
−/−
(23, 24).
,
A
( ) , , (. 5 A).
A
,
. B
. B220+
CD25+ B2 , 40:60 (-
))
, , D (23).

R - CR . A ( ) 42 C (A). C , C 2 K D A ( ) 4 – 0.8 . 94 C 2 , 40 94 C 15 , 58 C 30 , 72 C 15 , 72 C 10 . A , 52 C , 3609, 107/ 606. – C 3′ A A ( ). -A C – , 61 C. / , C 2 C , : 94 C 2 , 21 94 C 15 , 69 C (−0.33 C) 30 , C 15 ,572 72

20. [illegible]

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44. , . ., . . , . . , . . , . .
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