

## **USING VITELLOGENIN TO IDENTIFY INTERANNUAL VARIATION**









4.087 ± 0.36 μ (1). E

27 A 6 1999 (1.2). a-

- a 1999 a 24 a ± 20

a ( D), a a 9 a (1.3A), a

a a 70

a . B 19 A a 31 2000,

a 66 a a

a ( a = 2.05 ± 0.35 μ (1). , 49%

(32/66) a a a (± a 52/6248 11 a 0.247 05.6 247 161.697 58018447 □ (1) 9 0 0 9 167.048



Annex 3. 1999 2000. ( . . )

D	1999	2000
17 A 7	41.7% (12)	83.3% (6)
8		

D (1975) 42 49 (2002) 79 ; 77 . 1999 2000. 1999, ( 2), 2000, 2000 ; 2000 . (1997), A 1995, (1998).

(1997). A , A B 1990, (A 1998). 2002). A , A ( . . 1994) . B A (2002) 1996 1998 (2002) A (2002) A (2002) . . . )







AB. 2000. AB a a a ,  
a 13.1. a , a C ,

DE A , . . . E A , . . E A , .

C. A., A D A. . CA E. 1991. a a  
a a

C a a B a  
100A:719 724.

1997. a  
(Bac a a a . B

A . 276 (A. a  
, E ). A a a a ,

a a A a  
, a , D.C.

, . , A D . E. 1995. -  
a a a a

. a 89 97 E a  
C a a (C. .

a , a , a a , a .  
a , E ). D a A ,

-152.  
C E , . E. 1984. C a a -  
a . C a a a a

62:1897 1905.

E A , . 1974. B a  
a . A 91:10 23.

E A , . 1975. A  
a B C a

B -B a 46:141 154.

EC A , . A . A , A D D.  
A . 2000. a a a a -  
a a a a -

A a a a 23:364 377.