

Telomerase

가 가 . Ketamine(40 mg/kg) Rumpun(8 mg/kg) 4~0 silk

가 . 3 telomerase

연구방법

가 telomerase TRAP telomerase

가 가 . 22 Telomerase Kim ⁷⁾ TRAP assay
17 (77.3%) telomerase가 TRAPEZETM Telomerase Detection Kit
(0%) 15 (Oncor Co., USA)
telomerase가 (Fig. 1).
⁵⁾ Rudolph ⁶⁾ 29 , primer , TRAP , poly-
1 (3.4%) telomerase가 acrylamide gel , phosphorimager
9 6 (66.7%)
telomerase

telomerase 4
gerbil 50~100 mg microcentrifuge tube
telomerase 100 μl 1 × CHAPS lysis buffer(10 mM Tris - HCl, pH 7.5, 1 mM MgCl₂, 1 mM EGTA, 0.1 mM benzamidine, 5 mM β-mercaptoethanol, 0.5% CHAPS, 10% Glycerol) 가 가 ,
pestle Pellet pestle motor
(Kontes Co., USA)가

대상 및 방법

연구대상 65~70 g 10 Mongolian gerbils 10

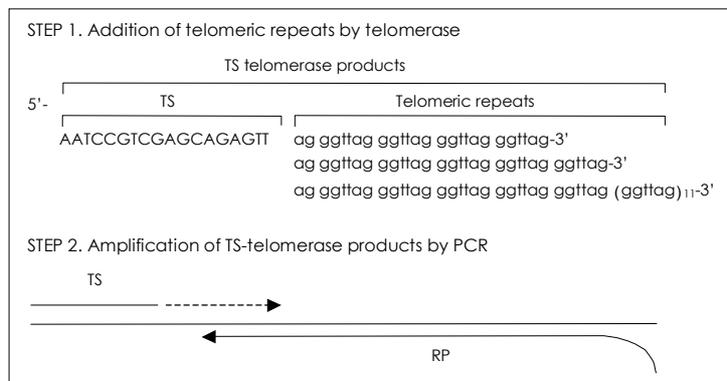


Fig. 1. TRAP assay.

30 , 5417R microcentrifuge(Eppendorf Co., Germany) 4 12,000×g 20 80 µl tube kit(Biorad Co., U.S.A.) 1× CHAPS lysis buffer 1 µl/µl가 TRAP TS primer(5' - AATCCGT-CGAGCAGAGTT - 3') 5' - labeling 20 µl ³²P - ATP (3000 Ci/mmol, 10 uCi/ml) 2.5 µl, TS primer 10.0 µl, 10× kinase buffer 2.0 µl, T4 polynucleotide kinase(10 units/µl) 0.5 µl 5.0 µl 37 20 85 5 가 4 TRAP 2 µg 25 µl 가 10× TRAP buffer(200 mM Tris - HCl, pH 8.3, 15 mM MgCl₂, 630 mM KCl, 0.5% Tween 20, 10 mM EGTA, 0.1% BSA) 2.5 µl, 50× dNTPs Mix(25 mM each dATP, dTTP, dGTP and dCTP) 0.5 µl, ³²P - TS primer 1 µl, TRAP primer mix(RP primer, K1 primer, TSK1 template) 0.5 µl, Taq polymerase(5

units/µl, Takara Co., Japan) 0.2 µl 18.3 µl (1 µg/µg) 2 µl 25 µl가 mimeral oil 20 µl PCR heating block(Mastercycler 5330, Eppendorf Co., Germany) 30 30 telomerase가 94 30 가 94 30 , 60 30 30 4 10 1 loading dye(0.25% bromophenol blue, 0.25% xylene cyanol, 50% glycerol, 50 mM EDTA, pH 8.0) 12.5% polyacrylamide gel(acrylamide : bis - acrylamide=19 : 1) 0.25× TBE buffer 20 V 3 gel autoradiography phosphorimager(Molecular Dynamics Co., USA) TRAP PCR Taq polymerase , 10× CHAPS lysis buffer 36 bp band , 36 bp 50, 56, 62, 68 6 bp

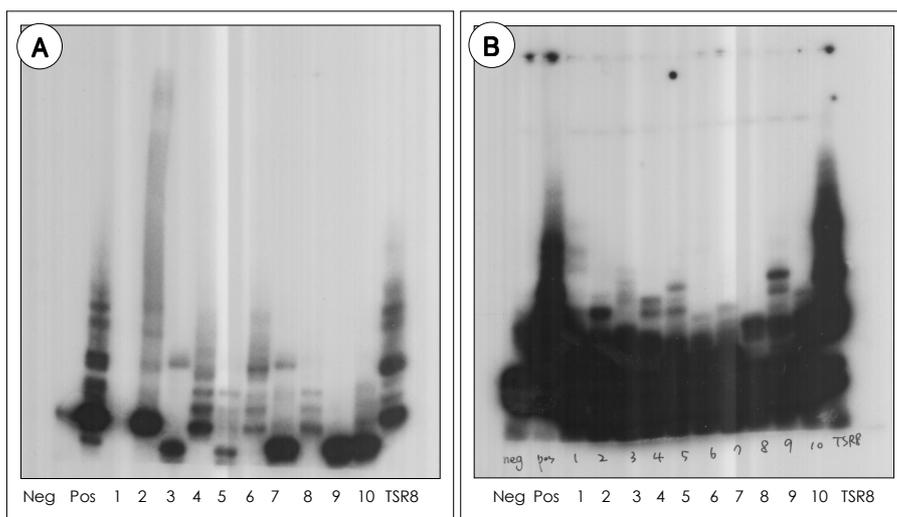


Fig. 2. Telomerase expression in experimentally induced cholesteatoma. A : control group, Three of 10 (No. 4, 6, and 8) showed telomerase activity. B : cholesteatoma group. Ten of 10 expressed telomerase activity.

Telomerase

TRAP . Mutirangura ¹¹⁾ 16
telomerase가 14 telomerase가 (87.5%) ,
85 5 가 RNase (erythroplakia)
TRAP 38.5% .
telomerase (hyperplasia) (dysplasia)
3 가 . Ka-
nnan ¹²⁾ 75% telo-
merase가 telo-
merase가 ¹³⁾ 8
telomerase
10 10 (100.0%) (Fig. 2), 7
10 3 (30%) telomerase가 .
Kyo ¹⁴⁾
telomerase (prolife-
rative phase) telomerase 95% 가
(secretory phase) 42%
Belair ⁴⁾ Kyo ¹⁴⁾
telomerase가
Telomere 가 가 .
telomere DNA
strand가 DNA
mere telo-
¹⁾ .
Simian Virus 40
tumor antigen PCNA, EGF, EGFR 가
¹⁵⁾¹⁶⁾ Shinoda ¹⁷⁾
telomerase telomere 가
가 telomerase
, telomere 가 wide type
⁸⁾ Telomerase telomere p53 가 wide
가 .
⁹⁾ type p53 apoptosis
¹⁸⁾ Fas apop-
18 16 (89%) telomerase가 tosis 가
. Cheng ¹⁰⁾ 85% 가 .
telomerase가 가
100% 가 apoptosis가
(60%) telomerase .

Holly¹⁹⁾ 가 c- myc 가 telomerase 가
 myc 가 c- myc telomerase 가
 가 telomerase 가
 가 telomerase
 Belair⁴⁾ telomerase 가 telomerase 가
 가 가 telomerase
 Goh⁵⁾ telomerase 가
 Rudolph⁶⁾ telomerase apoptosis 가 telomerase
 가 Kojima
²⁰⁾ telomerase telomere 가 telomerase
 가 telomerase 가
 telomerase 가
 22 telomerase 가
 telomerase
 telomerase
 결론 telomerase

중심 단어 : Telomerase

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