

Supporting Information

Sensitive Osteosarcoma Diagnosis Through Five-Base Telomerase Product-Triggered CRISPR-Cas12a Enhanced Rolling Circle Amplification

Xing Zhou*, Jun-Liang Zhang, Meng-Han Chang, Gen-Tao Fan, Xiao-Zhou Liu, Su-jia Wu, Xin Shi

Author Affiliations:

Department of Orthopaedics, School of Medicine, Jinling Hospital, Nanjing University, Nanjing, China.

*Corresponding authors:

Xing Zhou, MD, Department of Orthopaedics, Jinling Hospital, School of Medicine, Nanjing University, 305 Zhongshan East Road, Nanjing, China, 210002.
Tel: 0086-013675106750; Fax: 0086-25-80860220; Email: dr_zhouxing@126.com

Table S1 details of the sequences used in the experiment

Oligonucleotide	Sequences (5'-3')
TS primer	AAT CCG TCG ACG AGA GTT A
Padlock-1	P-TAA CTC TCG TCG TAC CTC AGCATC CCT ATC CCT ATC CCT ATCCCT ACC TCA GCA AAC CC
Padlock-2	P-ACT CTC GTC GTA CCT CAG CATCCC TAT CCC TAT CCC TAT CCCTAC CTC AGC AAA CCC TA
Padlock-3	P- CTC TCG TCG TAC CTC AGC ATCCCT ATC CCT ATC CCT ATC CCTACC TCA GCA AAC CCT AA
sgRNA	UAAUU <u>UCUACUAAGUGUAGAU</u> AUCCCCAUCCCCAUCC CU
Reporter	FAM-TTTAAAATTATA-BHQ

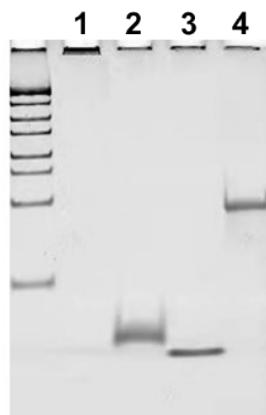


Figure S1. Non-denaturing PAGE analysis of telomerase extension products. 1. RCA products; 2. Extended TS primer; 3. TS primer; 4. Padlock.

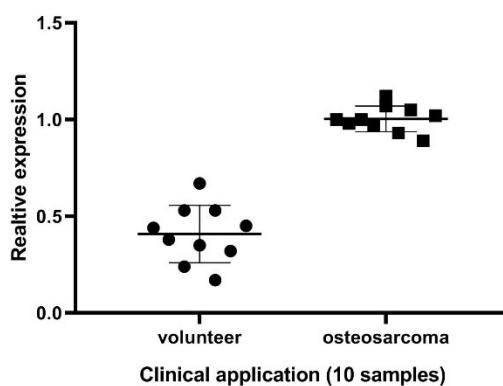


Figure S2. Clinical application of the proposed method for the study of telomerase expression in normal volunteers and osteosarcoma patients.