Supporting Information

Experimental details for RNA Isolation, reverse transcription, and PCR

RNA Isolation

Tumor tissues and normal tissues adjacent to the tumor tissues were snap-frozen in liquid nitrogen within 1h after surgery. Total RNA was isolated with TRIzol reagent. The purity and concentration of the extracted RNA was determined by a UV-vis spectrophotometer (Naka Instruments, Japan). Finally, total RNA was dissolved in RNase-free H_2O to a final concentration of 1 μg/μl.

Reverse Transcription

First, total RNA in RNase-free water was heated to 65°C for 5 min and snap chilled on ice for at least 1 min. Then, a reaction mixture containing 0.5 mM of each dNTP, 1×RT buffer, 1 μM RT primer, 0.5 U/μl RNase inhibitor, and 10 U/μl SuperScript II Reverse Transcriptase (Invitrogen) was added to each tube containing RNA, mixed gently, collected by brief centrifugation and incubated at 42°C for 50 min, followed by incubation at 70°C for 15 min to terminate the reaction. Single-stranded cDNAs from different sources that had been labeled by the sequences tagged in RT primers were diluted 1:10. Aliquots of each source-specific cDNA were pooled and used as the PCR template.

Polymerase Chain Reaction (PCR)

Each 50 μl PCR mixture contained 1.5 mM $MgCl_2$, 0.2 mM of each dNTP, 0.3 μM of each gene-specific primer (GSP) and the common primer (CP), 1 μl of template pool, and 1.25 units of DNA polymerase. Amplification was performed on a PTC-225 thermocycler PCR system (MJ research) according to the following protocol: denatured at 94°C for 15 min and followed by 35 cycles (94°C for 40 s; 55°C for 40 s; 72°C for 1 min). After the cycle reaction, the product was incubated at 72°C for 10 min and held at 4°C before use.