Quantitative Telomerase Detection Kit

Store at -20 ^{0}C for Longer Period

Description:

Quantitative Telomerase Detection Kit (QTD Kit) is specifically designed for real-time PCR detecting telomerase activity.

Quantitative Telomerase Detection Protocol has been developed for detecting telomerase activity in cells and tissues. In the assay, viable or freshly frozen cells/tissues (with enzymatically active telomerase) are lysed and the telomerase activity in the cell extract is determined through its ability to synthesize telomeric repeats onto an oligonucleotide substrate and the resultant extended product are subsequently amplified by the polymerase chain reaction (PCR). Generated PCR products are then visualized using highly sensitive DNA fluorochromes SYBR Green. Measuring the increase in fluorescence caused by the binding of SYBR Green dye to double-strand DNA monitors direct detection of PCR product.

Quantitative Telomerase Detection (QTD) Kit Content:

Catalog Number	MT3010	MT3011	MT3012
Reaction contains	50	100	200
2 x QTD Premix	0.65 ml	1.25 ml	2 x 1.25 ml
1× Lysis Buffer*	5 ml	10 ml	10 ml
Control Template TSR (0.5 amol/µl)	20 µl	20 µl	20 µl

* Add protease inhibitor cocktail before use as needed.

Reaction Components for Each PCR assay:

2 x QTD Premix	12.5 µl
Cell or Tissue Extract	1.0 µl
PCR Qualified Water	11.5 µl
Total Volume	25.0 µl

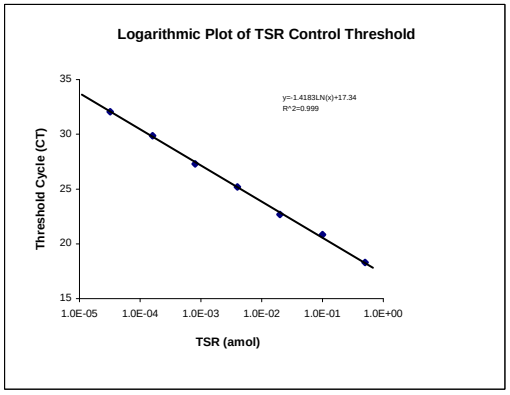
TSR Control Template Standard:

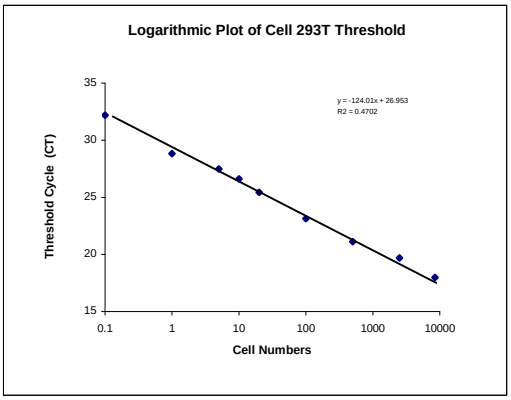
TSR is an oligonucleotide with a sequence similar to telomere primers. Perform Quantitative Real-Time PCR using dilutions of TSR to generate a standard curve. The provided TSR is in a concentration of 0.5 amoles/µl. Prepare 1:5 serial dilutions with 1× Lysis Buffer to obtain TSR concentration of 0.1 amoles/µl, 0.02 amoles/µl, 0.004 amoles/µl, 0.0008 amoles/µl, 0.00016 amoles/µl. Perform the telomerase detection standard assay using 1 µl of each TSR dilution including the 0.5-amoles/µl stock concentrations.

Program for Real-Time Cycler:

Steps	Time	Temperature
Telomerase Reaction	20 min	25°C
PCR Initial Activation Step	10 min	95°C
3 -step cycling:		
Denaturation	30 sec	95°C
Annealing	30 sec	60°C
Extention	30 sec	72°C
Cycle Number:	35-40 cycles	

Real-Time Threshold Cycle (C_T) of Control Template and Cell 293T:





For more information go to our website: www.alliedbiotechinc.com/Resource.asp

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