EURx® MOLECULAR BIOLOGY PRODUCTS

phi29 Polymerase

Description:

phi29 DNA Polymerase catalyzes a highly processive DNA synthesis (up to 70,000 base insertions per binding event) coupled to strand displacement activity[1]. It possesses an inherent 3'-5' exonuclease activity[2] acting preferentially on single-stranded DNA.

Source:

A recombinant *E. coli* strain carrying the phi29 DNA Polymerase gene from bacteriophage phi29.

Unit definition:

1 unit is defined as the amount of polymerase required to convert 0.5 pmol of dTTP into acid insoluble material in 10 minutes at 30°C.

Components:

Component	Cat. No. E1401-01 250 units	Cat. No. E1401-02 1250 units
10u/µl phi29 DNA Polymerase	25 µl	125 µl
10x phi29 DNA Pol Reaction Buffer	100 µl	1 x 500 µl
100x BSA non-acetylated (20mg/ml)	10 µl	50 µl

10x phi29 DNA Polymerase Reaction Buffer: 500 mM Tris-HCl, 100 mM $(NH_4)_2SO_4$, 40 mM DTT, 100 mM $MgCl_2$, pH 7.5 @ 25°C

Notes:

1. DTT contained in the reaction buffer degrades over time. It is recommended to supplement 10x reaction buffer that is older than 6 months with 1M DTT to a final concentration of 40 mM (in 10x reaction buffer).
2. Use 0,2 mg/ml non-acetylated BSA in 1x reaction buffer is recommended.

References:

1. Blanco, L. et al. (1989) J. Biol. Chem., 264, 8935-8940.
2. Garmendia, C. et al. (1992) J. Biol. Chem., 267, 2594-2599.

EURx Ltd. 80-297 Gdańsk Poland ul. Przyrodników 3, NIP 957-07-05-191, KRS 0000202039
www.eurx.com.pl, orders@eurx.com.pl, *tel.* +48 58 524 06 97, *fax* +48 58 341 74 23