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Data sheet
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MONOCLONAL ANTI-Pfu DNA POLYMERASE ANTIBODIES

RESEARCH USE ONLY

Mouse monoclonal antibodies
Clone: G11

SOURCE:
Mouse monoclonal antibodies

Cat. No.	Pack	Conc.
D-S101	0.1mg	2-10* mg/ml
D-S102	1.0 mg	2-10* mg/ml

Stability:
Shelf life 24 months if store at -20°C (for Mabs in glycerol buffer).
Shelf life 24 months if store at +4°C (for Mabs in glycerol free buffer).
*** -10 mg/ml or higher concentration available only for glycerol free storage buffer**

UNIT DEFINITION
One unit is defined as the amount of antibodies required to blocks 50% activity of 1 μg of Pfu Polymerase

STORAGE AND DILUTION BUFFER:
No.1: 20mM Tris-HCL (pH 7.5, at 25°C); 50 mM KCL;0.1mM EDTA; 50% glycerol
No.2 (glycerol free): 25mM Tris-HCL (pH 7.5, at 25°C);0.1% NaN_3

Note: Preparation of hot-start Polymerase blend with anti-Pfu Pol Mabs should be optimized for every type of Pfu polymerase according to specific activity of initial enzyme batch.

DESCRIPTION
Monoclonal anti-Pfu Polymerase antibodies (anti-Pfu Pol) were derived from hybridoma (fusion of mouse myeloma cell and cells after mouse immunization with Pfu DNA Polymerase (cloned). ***Anti-Pfu Pol antibodies (clone G11)*** are highly specific to Polymerization region of wild type Pfu, cloned Pfu; Pfu-based mutants**,** blocking polymerase activity at room temperature and up to 60°C. They binds to enzyme with high affinity, forming very temperature-stable protein/protein complex, which degradetes at the temperatures higher **70-72°C**, liberating active Pfu polymerase into PCR reaction. Addition Mabs to enzyme preparation allow avoiding miss-primimg and primer-dimer formation, increasing specificity of PCR and PCR product yield.

Ig subtype –IgG2b

PURITY:
>95-97% according gel electrophoresis

APPLICATIONS:
- Hot-Start mode PCR amplification
- Long-distance PCR
- High Fidelity PCR
- "Direct-blood" PCR
- "Fast-PCR"

STORAGE CONDITIONS :
Store ***anti-Pfu Pol*** DNA Polymerase at -20°C for long term storage(glycerol buffer)
Store ***anti-Pfu Pol*** DNA Polymerase at +4°C (glycerol free buffer)

SHIPPING CONDITIONS:
Should be shipped at ambient temperature

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Guidelines for anti-Pfu Polymerase Monoclonal antibodies Application

Anti-Pfu Mabs reacts with the most of Pfu based enzymes – "wild-types" Pfu (cloned), native Pfu and most of mutated Pfu-based enzymes, as far as Mabs clone G11, chosen on the reactivity with the both mutated and wild type cloned Pfu Polymerases.

1. The quantity of Mabs for preparation of hot-start Pfu polymerase should be titrated in accordance of the specific activity of each enzyme lot.
2. Usually, it is better to start from rate Enzyme/Mabs (mg) – 1:1. 1mg of Mabs to 1mg of protein, and titrate to the increasing of concentration of enzyme.
3. If Glycerol containing storage buffer is used, let preparation to stay at room temperature after addition of Mabs to enzyme preparation, and their mixing, at least 0,5 hour, before using in PCR.
4. Store enzyme/Mabs preparation at -20^{o}C, upon using.
5. For several days enzyme-Mabs mix should be stored at +4^{o}C.

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