AntiTaq antibody, glycerol free

Description: AntiTaq DNA Polymerase monoclonal antibodies glycerol free were derived from a hybridoma. Anti-Taq is mouse IgG type. AntiTaq antibody is also available with glycerol.

Content

Ref No.	S151001	151001	151005	color
AntiTaq DNA Polymerase monoclonal antibodies [5 mg/mL]	**Sample size**	**100 µg**	**500 µg**	**blue**
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Applications: AntiTaq DNA Polymerase monoclonal antibodies glycerol free are used for enhancing PCRs by blocking polymerase activity at ambient temperature. This glycerol-free variant is ideal for lyophilisation.

Concentration: 5 mg/mL in storage buffer without glycerol

Sensitivity: --

Unit definition: One unit is defined as the amount of AntiTaq antibodies required to block 50 % activity of 1 µg of Taq DNA Polymerase at 37 °C. 2300 Units of specific activity are equal to 1 mg of antibodies.

Quality control:

- 98% protein homogeneity in 10% SDS-PAGE
- No detectable exo-/endonuclease activities
- Blocking-Test (HotStart)

Storage condition: -20 °C

AntiTaq recommendations for researcher

The amount of antibodies required to inhibit Taq polymerase activity depends not on the units of enzyme, but on the amount of Taq polymerase as a protein (in mg, µg). The ratio units/mg of Taq polymerase varies strongly from preparation to preparation (factor of 10 in our tests).

We consider 1 mg of our antibodies as 2300 "blocking units. The amount of Taq-Polymerase units in 1 µg varied from different producers from 5,000 to 50,000 units according to our experience. So, the amount of antibodies for Taq-Polymerase inhibition varies correspondingly.

The exact ratio of Taq polymerase/antibodies for the best performance (of course, considering the amount of units reqired for 50 % activity inhibition) has to be found empirically.

- Mix 1 unit antibody with 1 unit Taq Polymerase and check the PCR performance.
- Try in small scale and test the Hot Start function (standard PCR) and the sensitivity with standard PCR or real-time PCR (serial dilutions of target template of known concentration).
- When the optimal ratio is found, scale up to final volume by mixing both components.
- Then repeat quality control test with your final product (Hot Start test and sensitivity test).

BIORON GmbH recommends you to try SuperHotTaq DNA Polymerase - the optimized mixture of Taq polymerase and antibodies. Ideal conditions were optimized for this mixture.