



The ENZYME Company

DATA SHEET
MONOCLONAL ANTI – *TAQ* DNA Polymerase Antibodies

FOR RESEARCH USE ONLY

Clone No: 4010

Description:	Monoclonal anti- <i>Taq</i> Polymerase antibodies were derived from a hybridoma. Anti- <i>Taq</i> is mouse IgG type.
Unit Definition:	One unit defined as the amount of anti- <i>Taq</i> antibodies required to block 50% of activity of 1µg of <i>Taq</i> DNA Polymerase, at 37°C.
Storage Buffer:	10mM Tris-HCL (pH 7.0 at 22°C); 50mM KCL; 0.1mM EDTA; 50% glycerol
Associated Activities:	No conversion to the covalently closed circular DNA to the nicked or linear form was observed after incubation of 1µg of pUC19 with antibodies in final concentration of 2,5 mg/ml in 20 µl of reaction mixture containing 25mM Tris-HCL (pH 7.9); 100mM NaCl; 10mM MgCl ₂ after 16 hours at 37°C.
Purity	More than 95% in SDS electrophoresis in 15% PAAG
Storage Conditions:	Store anti- <i>Taq</i> DNA Polymerase antibodies at -20°C
Units/mg ratio	2300 Units of specific activity equal to 1 mg of antibodies
Concentration:	0,1-4,0 mg/ml

Version 1.1 01.03

Bioron GmbH

Contact: Phone: +49-(0)-621- 5720 915 Fax:+49-(0)-621-5720 916
E-Mail: info@bioron.net WEB: www.bioron.net



The ENZYME Company

Anti TAQ (recommendations of a researcher)

The amount of antibodies required for Taq-pol activity inhibition depends not on the units of the enzyme, rather 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). In fact, antibodies are a good tool to check the amount of the "inactive" protein in the specific preparation. We consider 1 mg of our antibodies as 2300 "blocking units", 1 blocking unit is defined as the amount of antibodies required to block 50% activity of 1 μg of Taq DNA polymerase at 37°C. The amount of Taq-pol units in 1 μg varied from different producers from 5000units to 50.000 units according to our experience. So, the amount of antibodies for Taq-pol inhibition will vary correspondingly.

As for the exact ratio Taq-pol/antibodies, they should be found empirically for the best performance (of course, considering the amount of units required for 50% activity inhibition). I recommend you to try our SuperHotTaq enzyme - the optimized mixture of Taq-pol and antibodies, I think we managed to find quite a good optimum for this mixture. A lot of people are happy with this preparation in RealTime PCR and in regular PCR with some obstacles.

Regarding the license, we do not keep the license of BD (originally Eastman Kodak), meanwhile if to check the patent **5,338,671** of BD, it the "Method of PCR..." patent. I doubt that there is a need for the license to offer antibodies itself in the mixture with Taq-pol.

Bioron GmbH

Contact: Phone: +49-(0)-621- 5720 915 Fax:+49-(0)-621-5720 916

E-Mail: info@bioron.net WEB: www.bioron.net