

Genaxxon BioScience

10X PCR Buffer "X"

optimised buffer for difficult templates

fon:
 +49 (0)7357 - 91 63 77
 fax:
 +49 (0)7357 - 91 63 78
 eMail:
 info@genaxxon.com
 internet:
 www.genaxxon.com

Product	Cat#	Package size
10X PCR Buffer "X"	M3318.0010	1 ml

Product description

The Genaxxon 10X PCR Buffer "X" is an optimised PCR buffer system with a balanced KCl-ammoniumsulfate buffer ratio. The buffer improves, respective enables, more complicated PCR systems such as multiplex PCR.

The buffer can be used together with all DNA-polymerases from Genaxxon, especially the HotStart enzymes.

Stability and Storage

The 10X PCR Buffer "X" is stable for more than 24 months at -20°C.

Properties and application

The 10X PCR Buffer "X" substitutes the regularly shipped PCR buffer. It is used exactly like the normal 10X PCR buffer. It is recommended to vortex all 10X buffers before use to avoid buffer concentration gradients in the tube.

The buffer contains 15 mM MgCl₂. For different purposes it is recommended to titrate MgCl₂ to get better PCR results.

MgCl₂ concentration in a 50 µl reaction

Final MgCl ₂ conc. in reaction (mM)	1.5	2.0	2.5	3.0	3.5	4.0	4.5
Additional volume of 25 mM MgCl ₂ per reaction (µl)	0	1	2	3	4	5	6

Preparation of a PCR master mix solution

Pipette the following into a PCR reaction tube, mix and make up to final volume of 50 µl:

Components	Vol. / reaction	Final concentration
10X PCR buffer	5 µl	1X
dNTP-mix (12.5 mM each)	0.8 µl	0.2 mM each
Primer A and B	variable	0.1 – 1.0 µM each
Taq / HotStart Taq polymerase	0.5 µl	2.5 units
Template DNA	variable	variable
Distilled water	variable	---
Total Volume	50 µl	---

Note: For every template/primer pair the optimal reaction conditions have to be evaluated empirically, changing the primer/template ratio, the ionic strength (with MgCl₂) and the cycle parameters (time and temperatures).