GENAXXON bioscience

fon:
+49 (0)731 - 3608 123
fax:
+49 (0)731 - 3608 962
eMail:
info@genaxxon.com
internet:
www.genaxxon.com

10X PCR Buffer "S"

standard buffer system for the Genaxxon Taq-Polymerase

Product	Cat#	Package size
10X PCR Buffer "S" complete	**M3454.0015**	**1.0mL**
10X PCR Buffer "S" incomplete	**M3453.0015**	**1.0mL**

Product description

The Genaxxon 10X PCR Buffer "S" is the standard PCR buffer system for the Genaxxon Taq-DNA polymerase without ammonium sulfate in the buffer. This buffer increases specifity of PCR reactions resulting in sharper bands and less side products.

The buffer can be used together with all DNA-polymerases from Genaxxon, and is the "normal" buffer shipped together with the Genaxxon Taq-DNA polymerase (M3001).

The buffer can be ordered together with our Taq under the catalogue number M3001.

Buffer composition

- *10 x PCR buffer "S" with MgCl2* : 100mM Tris-HCl (pH 9.0 at 25°C), 500mM KCl, 15mM MgCl2, 1.0% Triton X-100
- *10 x PCR buffer "S" without MgCl2* : 100mM Tris-HCl (pH 9.0 at 25°C), 500mM KCl, 1.0% Triton X-100.

Stability and Storage

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

Properties and application

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

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

MgCl2 concentration in a 50µL reaction

Final MgCl2 conc. in reaction (mM)	0	0.5	1.0	1.5	2.0	2.5	3.0
Additional volume of 25mM MgCl2 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 50µL:

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

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