Product Information Sheet

Product Name: 10X GC Enhancer

Item Number:

Item Number	Rxns	Qty
GCE-10-100	100	(1 x 500µL)
GCE-10-500	500	(5 x 500µL)

Concentration: 10X

Storage and Handling: Store at -20°C upon arrival.

Product Description:
Empirical's 10X GC Enhancer is a novel PCR cosolvent that enhances amplification and overcomes inhibition of GC rich templates ≤ 80% GC content. The 10X GC Enhancer can be added to any buffer system or master mix to enhance amplification of difficult templates.

Reaction set-up: For a 50uL reaction

Component	Volume	Final Concentration
*10X Reaction Buffer	5 µl	1X
Upstream Primer, 10µM	0.5-5.0 µl	0.1-2.0µM
Downstream Primer, 10µM	0.5-5.0 µl	0.1-2.0µM
dNTP, 10mM	1-2.5 µl	200-500µM
DNA Template	X µl	50-500ng gDNA; 2-50pg pDNA
Taq Polymerase	0.25-1uL	1.25U-5U
GC Enhancer	5 µl	1X
Nuclease Free Water	to 50 µl	N.A.

*Magnesium Concentration can be increased with provided solution.

Thermal cycling conditions: The following general cycling conditions are recommended but can vary depending the enzyme, template and primers being used.

Cycling Step	Temperature	Holding Time	Cycles
Initial Denaturation	94-95°C	15sec – 2min	1
Denaturation	94-95°C	15-30sec	30
Annealing**	55-65°C	15-30sec	
Extension	68-72°C	1min/kb	
Final Extension	68-72°C	5-10min	1

**Annealing will depend on primer length and composition. Generally, begin 5°C below primer T_m.

This product is for "Research Use Only. Not for use in diagnostic procedures".
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