



# Optimase ProtocolWriter™ Software Your Passport to Successful PCR

Access Transgenomic's free PCR protocol software for the proofreading enzyme Optimase® Polymerase at [www.MutationDiscovery.com](http://www.MutationDiscovery.com)®

**Optimase ProtocolWriter™**

This tool will generate PCR protocols for use with Optimase, the high-fidelity polymerase product from Transgenomic. To generate a PCR protocol, enter your primers and anticipated PCR product length, and select a PCR protocol type. When you click on "Develop PCR protocol", this software will generate the appropriate PCR protocol.

Forward primer sequence:  Tm = 46.7°C  
 Reverse primer sequence:  Tm = 48.8°C  
 PCR product length:  bp  
 Protocol type:

Optimase ProtocolWriter software uses a robust algorithm for optimization of PCR reactions with Optimase Polymerase. Simply enter forward and reverse primer sequences and anticipated PCR product length. Optimase ProtocolWriter software develops the simple three-step or touchdown PCR protocol.

To use Optimase ProtocolWriter software:

1. Access [www.MutationDiscovery.com](http://www.MutationDiscovery.com) and click on **Optimase ProtocolWriter**.
2. Do the following:
  - a) Enter the sequence of the PCR primers in the *Forward primer sequence* field and the *Reverse primer sequence* field.
  - b) Enter the number of base pairs in the *PCR product length* field.
  - c) Select the desired PCR approach in the *Protocol type* field.
3. Click on the **Develop PCR Protocol** button. Optimase ProtocolWriter software displays the PCR protocol.

Optimase MasterMix Calculator is designed to generate PCR master mix reagent volumes based on the following parameters:

- Number of reactions
- Reaction volume
- Percent allowance for error
- Presence of Magnesium Sulfate (optional)

**Optimase Master Mix Calculator**

NUMBER OF REACTIONS:   
 REACTION VOLUME:  µl  
 ALLOWANCE FOR ERROR:  %  
 Magnesium sulphate in buffer?

Reagent	Stock Concentrations	Desired Values	Reaction Mix (µl)
Reaction buffer	10 X	1 X	55
Magnesium Sulphate	25 mM	2.5 mM	N/A
dNTPs (total)	10 mM	0.8 mM	44
Forward primer	50 µM	0.4 µM	4.4
Reverse primer	50 µM	0.4 µM	4.4
DNA template	100 ng/µl	100 ng	11
Optimase	2.5 U/µl	1 U	4.4
Water			426.8
Total reaction volume:			550 µl

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