

## Certificate of Analysis

### Magnesium Chloride Solution, 25mM:

Part No.	Size
A351B	750µl
A351F	25ml
A351H	1.2ml

**Storage Conditions:** See the Product Information Label for storage recommendations and expiration date.

**Usage Note:** Allow product to thaw completely, then mix well prior to use. Magnesium Chloride ( $MgCl_2$ ) solutions tend to form concentration gradients upon freezing.

## Quality Control Assays

### Activity Assay

**PCR Functional Assay:** Magnesium Chloride Solution, 25mM, is tested for amplification performance in a polymerase chain reaction.

**Magnesium Concentration:** Magnesium concentration is confirmed spectrophotometrically using the Lancer method. The specification range is 25mM  $\pm$  5%.

### Contaminant Assay

**Endonuclease Assay:** One microgram of plasmid DNA is incubated in 50µl of 50mM KCl, 10mM Tris-HCl (pH 9.0 at 25°C), 0.1% Triton® X-100, 1.5mM  $MgCl_2$  for 8 hours at 45°C, followed by 8 hours at 70°C. Following incubation, the plasmid DNA is visualized on an ethidium bromide-stained agarose gel to verify the absence of visible nicking.

**Exonuclease Activity:** One microgram of lambda DNA is incubated in 50µl of 50mM KCl, 10mM Tris-HCl (pH 9.0 at 25°C), 0.1% Triton® X-100, 1.5mM  $MgCl_2$  for 8 hours at 45°C, followed by 8 hours at 70°C. Following incubation, the lambda DNA is visualized on an ethidium bromide-stained agarose gel to verify the absence of visible smearing.

**RNase Assay:** To test for RNase activity, 50ng of radiolabeled RNA is incubated with  $MgCl_2$  at a final concentration of 5mM in a 25µl reaction volume for 2 hours at 37°C. Less than 3% of radiolabeled nucleotides are released as monitored by scintillation counting of TCA-precipitable and TCA-soluble material.



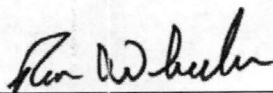
#### PCR Satisfaction Guarantee

Promega's PCR Systems, enzymes and reagents are proven in PCR to ensure reliable, high performance results. Your success is important to us. Our products are backed by a worldwide team of Technical Support scientists. Please contact them for applications or technical assistance. If you are not completely satisfied with any Promega PCR product we will send a replacement or refund your account.

*That's Our PCR Guarantee!*

Product must be within expiration date and have been stored and used in accordance with product literature. See Promega Product Insert for specific tests performed.

Signed by:

  
R. Wheeler, Quality Assurance

## Magnesium Chloride Solution



REF A3511 LOT 0000328842  
-30°C  $\rightarrow$  -10°C  
Conc: 25mM Dispensed Lot#: 0000286931  
1.5ml

For Laboratory Use

Country of Origin: USA

Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711-5399 USA



ADA3511 00003288427

PEEL  
HERE



## Promega

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