



# RNA-TRUE Marker4000

Cat. No.: RTRUEM4\_1

Store at -20°C (up to 2 years)

Storage Buffer: Supplied in nuclease-free water including RNase inhibitor and RNA sample buffer (32.5% formamide, 2.22% formaldehyde, MOPS buffer (20 mM MOPS, 5 mM sodium acetate trihydrate, 2 mM EDTA, pH 7.0), 1% sucrose, 1.5 mg/ml Orange G). Ready-to-use.

**Description:**

Are you tired of tracing your RNA marker with a pen and dealing with inconsistent transcript sizes? Upgrade to the next generation of RNA size standards with our RNA-TRUE Marker! Our advanced product sets new benchmarks for accuracy and reliability in gel electrophoresis, meeting the highest quality standards. Discover why the RNA-TRUE Marker is the ideal choice for your RNA analyses:

**Precise Migration Behavior:** With the RNA-TRUE Marker, guesswork is a thing of the past. Designed to ensure accurate running behavior under a wide range of gel electrophoresis conditions, whether you use different gel concentrations, run times, or voltages, our product consistently delivers excellent results. This means less uncertainty and 100% confidence in your results.

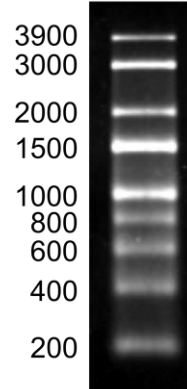
**Intensive Staining:** We understand the importance of clear visualization. The RNA-TRUE Marker includes special dyes that guarantee maximum visibility, ensuring you never miss a band. Our dyes are specifically optimized for all common fluorescence detection platforms from 500 to 800 nm wavelengths and can also be used with chemiluminescence systems upon request.

**Highest Stability:** The RNA-TRUE Marker is specially formulated to resist natural RNA degradation by RNases, maintaining the integrity of your standards and providing reliable results every time.

**Consistent Benchmarks:** Rely on RNA-TRUE Marker for consistent standards. Our batches are carefully matched to avoid deviations, providing you with a reliable basis for your analyses.

Experience the advantages of our RNA-TRUE Marker and elevate your research. With our advanced technology and commitment to quality, we are your perfect partner for precise RNA analyses.

RNA-TRUE Marker4000



Northern blot nylon membrane detected in the near-infrared range. The RNA-TRUE Marker4000 was stained on the blot with our RNA-TRUE Dye700. 10.5 µl were loaded on a 7 mm width of gel lane.

**Fluorescent Dye Spectrum**



**Chemiluminescence Dye**





**For Unlimited Experience!** The marker used alone can already be detected with dyes such as ethidium bromide or can be detected in all gel applications using UV visualization. For fluorescent Northern blot applications you can choose between 4 fluorescent dyes which can be detected at 500, 600, 700 or 800nm as well as our chemiluminescent dye. Especially the fluorescent dyes offer the possibility for multiplexing and an adjustment of the marker intensities to the detected sample. For detailed information please see our **Northern Blot Protocol for Fluorescence Detection**.

## User Guide: RNA-TRUE Marker4000

### Recommendations For Use:

1. Thaw ladder on ice
2. Mix thoroughly by pipetting or gentle vortexing to avoid concentration gradients formed during freezing.
3. Use 1.5 µl of the ladder per 1 mm of gel lane width
4. Heat at 70°C for 10 minutes
5. Chill quickly on ice, spin down and place on ice until loading

### Note:

- RNA ladders, like any RNA, are highly susceptible to degradation by ribonucleases. To prevent RNA degradation, always wear protective gloves and prepare fresh gels and electrophoresis buffers immediately before use. Ensure that plastic ware, tips, and solutions are treated with diethyl pyrocarbonate (DEPC) or prepared with nuclease-free water.
- The provided 2x RNA loading buffer can be used for sample preparation.
- The 2x RNA loading Dye contains the denaturing agents formamide and formaldehyde. When applied to samples, these agents allows RNA molecules to separate based on their size, preventing secondary RNA structures.

### Product Use Limitation:

This product is intended solely for research purposes and *in vitro* use. It has not been tested for diagnostic applications or drug development and is not suitable for use in humans or animals.

**SAFETY INFORMATION:**

2x RNA loading Dye



Toxic  
Serious health hazard  
Corrosive

Hazard-determining components of labelling:  
**formamide, formaldehyde**

**Hazard Statements:**

H301, H311, H331: Toxic if swallowed, in contact with skin or inhaled.  
H314: Causes severe skin burns and eye damage.  
H335: May cause respiratory irritation.  
H317: May cause an allergic skin reaction.  
H341: Suspected of causing genetic defects.  
H350: May cause cancer.  
H370: Causes damage to organs.

**Precautionary Statements:**

P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301, P310, P330, P331: IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.  
P303, P361, P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P304, P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305, P351, P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.  
P403, P233: Store in a well-ventilated place. Keep container tightly closed.