

# Rabbit Reticulocyte Lysate, Endogenous mRNA Free

**Cat. No.** RRL-01RCL    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Rabbit Reticulocyte Lysate, Endogenous mRNA Free, is prepared from New Zealand white rabbits. After the reticulocytes are lysed, the extract is treated to eliminate endogenous mRNA and thus reduce background translation to a minimum. The lysate contains the cellular components necessary for protein synthesis (essential cellular components such as tRNA, ribosomes, amino acids, and initiation, elongation, and termination factors).                                                                                                                                                                  |
| <b>Source</b>           | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Description</b>      | Rabbit Reticulocyte Lysate (RRL) is a commonly used reagent kit for cell-free protein expression systems, primarily utilized in in vitro translation studies. This system supports efficient protein synthesis by providing essential cellular components such as tRNA, ribosomes, amino acids, and initiation, elongation, and termination factors. Additionally, the RRL system can perform post-translational modifications, including phosphorylation, acetylation, and isoprenylation. Signal peptide cleavage and core glycosylation can also be achieved by adding canine pancreatic microsomal membranes. |
| <b>Source</b>           | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Form</b>             | Solution/Lyophilized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Quality Control</b>  | Activity Assay: Perform in vitro translation using known mRNA templates and verify protein expression through radioactive labeling (such as <sup>35</sup> S-methionine) or Western                                                                                                                                                                                                                                                                                                                                                                                                                                |

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Blot analysis.

Purity Assessment: Nucleic Acid Residue: Examine the degradation of endogenous RNA by performing agarose gel electrophoresis to ensure complete degradation.

**Storage**

Store it at -20 - -80 centigrade. Avoid repeated freeze-thaw cycles.

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