

Rapid Isolation of RNA, DNA, and Proteins with LumiZol Reagent

LumiZol Reagent is designed for the rapid isolation of RNA, DNA, and proteins from cell and tissue samples of various origins (plants, animals, bacteria, and yeast). LumiZol Reagent is a solution containing phenol, guanidine isothiocyanate, and other components required for isolation of high-quality nucleic acids and proteins. Phenol and guanidine isothiocyanate provide cell lysis and effectively inhibit ribonucleases, thereby keeping RNA intact. After homogenizing and adding chloroform, the sample separates into an upper aqueous phase, interphase, and lower organic phase. The RNA can be precipitated with isopropanol from the upper phase, while the DNA and proteins can be precipitated with ethanol and isopropanol, respectively, from the interphase and lower organic phases.

Samples for RNA, DNA, and protein isolation:

- plant and animal tissues — 30–100 mg;
- adherent eukaryotic cells — 1×10^5 to 1×10^7

