**P0763S**

**1 mg | 13.3 µM | Lot: 0041310**

**RECOMBINANT | Store at −80°C | Exp: 10/15**

**Description:** The ribosome is the machinery for protein synthesis in a cell. The 70S ribosome consists of a small subunit (30S) and a large subunit (50S). This preparation of ribosome is highly active in the PURExpress Protein Synthesis Kit (NEB #E6800).

**Supplied in:** 20 mM HEPES-KOH (pH 7.6), 10 mM MgAC₂, 30 mM KCl, and 7 mM β-mercaptoethanol.

**Concentration:**

33.3 mg/ml (13.3 µM)

1 A₅₀₀ = 60 µg/ml

1 mg/ml = 0.4 µM

**Source:** The ribosome is purified from an *E. coli* B strain.

**Applications:**

- *In vitro* translation
- Ribosome structural and functional studies
- Target for drug screening
- Starting material for isolation of native ribosomal RNAs (5S, 16S and 23S)

**Quality Control Assays**

*E. coli* Ribosome is functionally tested in the PURExpress Protein Synthesis Kit (NEB #E6800).

**Usage Notes:** Avoid multiple freeze/thaw cycles. If you plan to use the ribosome multiple times, we recommend preparing aliquots after first thaw. Handle the ribosome gently, mix by tapping the tube, and avoid vigorous vortexing or high speed centrifugation. Mg²⁺ is necessary to keep the ribosome intact. If you are going to dilute the ribosome, be sure to include 10 mM MgAC₂ in the buffer.

**Companion Products:**

- PURExpress® *In Vitro* Protein Synthesis Kit #E6800S 10 rxns
- #E6800L 100 rxns
- PURExpress® Δ Ribosome Kit #E3313S 10 rxns
- #E6850S 10rxns
- PURExpress® Disulfide Bond Enhancer #E6820S 50 rxns
- PURExpress® Δ (aa, tRNA) Kit #E6840S 10 rxns

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