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***Renilla reniformis* Green Fluorescence Protein- Streptavidin Complex**

SA-rrGFP 1.0

Specifications

Green Fluorescent Protein of *Renilla reniformis* was genetically engineered to be produced in *E. coli* and to contain the Avitag peptide sequence. Avitag peptide (GLNDIFEAQKIEWHE) was biotinylated so one biotin is covalently attached to the lysine within the Avitag peptide. rrGFP was purified to > 98% purity.

The purified rrGFP was mixed with Streptavidin (1:1 molar ratio). The resulting complex was purified by size exclusion. The purified material was determined to be capable of detecting other biotinylated molecules and contained no "free" streptavidin.

This product can be a very useful detection molecule for biotin and biotinylated proteins through the Streptavidin molecule. The strong Fluorescence of the *Renilla reniformis* GFP allows sensitive detection.

Source: *Renilla reniformis* and *Streptomyces avidinii*

Storage buffer: 10mM Na₂HPO₄, 140mM NaCl, 2mM KH₂PO₄, 3mM KCl, 20% glycerol pH 7.6.

Storage conditions: The enzyme arrives on dry ice (or, in some cases, ice bricks) and should be immediately stored at **-80°C**. Protein can be quickly thawed and placed at 4°C. Avoid repeated freezing and thawing of protein.

Concentration: A₂₈₀ = 1.034, 320 µg/ml by Bradford reagent, 0.5 ml

Purity: >98% by Coomassie staining. The number of rrGFP molecules per Streptavidin is not known. The complex can detect other biotinylated molecules in an ELISA format.

Activity: Ratio 495nm/280nm = 0.82. Fluorescence measurements are dependent on individual fluorometer and must be determined by user.