

# Streptavidin-Lucia

A Lucia luciferase conjugate of Streptavidin

Catalog # rep-svlc

For research use only, not for diagnostic or therapeutic use

Version # 16G06-MT

## PRODUCT INFORMATION

### Content

2 tubes of lyophilized Streptavidin-Lucia  
Resuspension of lyophilized Streptavidin-Lucia with 500 µl H<sub>2</sub>O per tube provides a solution of ~100 µg/ml.

### Storage and stability

- Streptavidin-Lucia is shipped at room temperature and should be stored at -20 °C. Lyophilized product is stable for 1 year when properly stored.  
- Upon resuspension, prepare aliquots of Streptavidin-Lucia and store at -20 °C. Resuspended product is stable for 6 months when properly stored. Avoid repeated freeze-thaw cycles.

## PRODUCT DESCRIPTION

The synthetic Lucia luciferase gene was fused to the *Streptomyces avidinii* streptavidin gene using a linker to generate a recombinant Streptavidin-Lucia protein. The Streptavidin-Lucia protein has a molecular mass of ~37 kDa and was produced in CHO cells.

Streptavidin-Lucia combines the advantages of two systems: streptavidin, for strength of binding to biotin-labeled proteins, and Lucia luciferase, a small secreted coelenterazine-utilizing luciferase with strong and stable bioluminescence properties for sensitive detection with low background.

This product can be used for the detection of streptavidin-biotin interactions with high sensitivity, accuracy and convenience when paired with QUANTI-Luc™, a coelenterazine-utilizing luciferase assay reagent.

The unique long-lasting bioluminescence property of Lucia luciferase allows for ease in reading measurements. After addition of the QUANTI-Luc reagent to each well of a 96-well plate, results can be obtained in less than a minute using a luminometer without injectors.

## APPLICATIONS

Streptavidin-Lucia has been optimized for ELISA and can be adapted for use in a variety of assays requiring the detection of biotin and biotinylated proteins.

ELISA: 1:1000 dilution of stock solution

## METHODS

### Preparation of stock solution

- Reconstitute product by adding 500 µl H<sub>2</sub>O to the content of each tube.  
- Mix by vortexing.  
- Prepare aliquots and store at -20 °C.

### Detection of Lucia luciferase activity using QUANTI-Luc™

Below is a protocol for end-point readings using a luminometer with a manual set-up. This protocol can be adapted for use with a luminometer with an injector.  
- Prepare QUANTI-Luc™ assay reagent according to the product data sheet.  
- Set up luminometer to end-point measurement with a 0.1 second reading time.  
- Add 50 µl of QUANTI-Luc™ per well of a 96-well plate.  
- Place microplate in luminometer.  
- Proceed with measurement to determine Relative Light Units (RLUs) of Lucia luciferase.  
*Note: If assaying several microplates, add QUANTI-Luc™ and measure RLUs one plate at a time.*

## RELATED PRODUCTS

Product	Catalog Code
QUANTI-Luc™ (2 pouches)	rep-qlc1
QUANTI-Luc™ (5 pouches)	rep-qlc2

### TECHNICAL SUPPORT

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