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Product Information

MISSION® LightSwitch Luciferase Assay Reagent™

SWITCHGEAR GENOMICS

Catalog Number **MLS0001**
Storage Temperature –20 °C

TECHNICAL BULLETIN

Product Description

The MISSION® LightSwitch Luciferase Assay Reagent™ enables one-step reagent addition to measure luciferase reporter signal. The MISSION LightSwitch Luciferase Assay Reagent and the MISSION 3′UTR Lenti GoClone™ report constructs are a fully optimized reporter system that includes an improved reporter gene (RenSP), an optimized assay reagent, and a genome-wide collection of 3′UTR Lenti GoClone reporter constructs. The MISSION 3′UTR Lenti GoClone reporter constructs have been optimized for use with the MISSION LightSwitch Luciferase Assay Reagent.

Components

MISSION LightSwitch Assay Reagent Substrate 100×, Catalog Number L5795	1 vial
MISSION LightSwitch Assay Reagent Buffer, Catalog Number L5920	10 mL
MISSION LightSwitch Assay Reagent Solvent, Catalog Number L6045	100 µL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store the kit at –20 °C.

Preparation Instructions

1. Reconstitute Assay Reagent Substrate 100× - Add 100 µL Assay Reagent Solvent to tube of 100× Substrate (for 100 assay kit). Dissolve completely. Protect from light and minimize time at room temperature. 100× Substrate may be stored at –20 °C and protected from light for 2–3 weeks. For best results, use freshly reconstituted substrate.
2. Prepare Assay Solution (for one 96 well plate)
   a. Thaw 10 mL bottle of Assay Reagent Buffer in room temperature water bath and add 100 µL of reconstituted 100× Substrate just prior to use. Mix well.
   b. Prepare Assay Solution (buffer + substrate mix) fresh for each use and use within 2–3 hours. To assay fewer wells, make up only the volume needed, and store remaining substrate and buffer separately at –20 °C.

Procedure

1. Use a multichannel pipettor to add 100 µL Assay Solution (buffer + substrate) directly to each culture well in a white 96 well plate.

   Bring plate to room temperature. Cells may be assayed in white 96 well TC plates directly from the incubator (100 µL of medium per well).

   Alternatively, plates with cells in medium may be stored at –80 °C and thawed to room temperature for 45 minutes before assaying.

   If cells were grown in another plate or flask format, transfer samples to a white 96 well plate in 100 µL total volume (medium or PBS).

2. Cover plate, protect from light, and incubate for 30 minutes at room temperature.

   If assaying more than one plate, stagger addition of assay solution so each plate incubates for 30 minutes before reading.

3. If cells were grown in a solid, white tissue culture plate (96 well; VWR Cat no. 82050-736 or equivalent) assays can be read directly in culture plate. If not, transfer entire 200 µL to such a plate. Read each well for 4 seconds in a plate luminometer (LMAXII384 or equivalent).

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SC,PHC 08/12-1