Validation data for QUANTI-Luc™ Gold

https://www.invivogen.com/quanti-luc-gold

For research use only

Version 18L10-MM

QUANTI-Luc™ Gold, comprising QUANTI-Luc™ Plus and QLC Stabilizer, is an optimized kit for the detection of Lucia luciferase and other secreted coelenterazine-utilizing luciferases. QUANTI-Luc™ Plus contains the coelenterazine substrate for the luciferase reaction. This reagent can be used with or without QLC Stabilizer. Addition of the QLC Stabilizer results in enhanced light signal stability (see Figures 1 and 2). This option is ideal for high-throughput screening, time-course studies or when using a luminometer without injectors. Use of QUANTI-Luc™ Plus without the QLC Stabilizer allows for higher light output detection compared to our standard QUANTI-Luc™ detection medium (see Figure 1). This option is ideal for monitoring the cellular response to weak agonists.

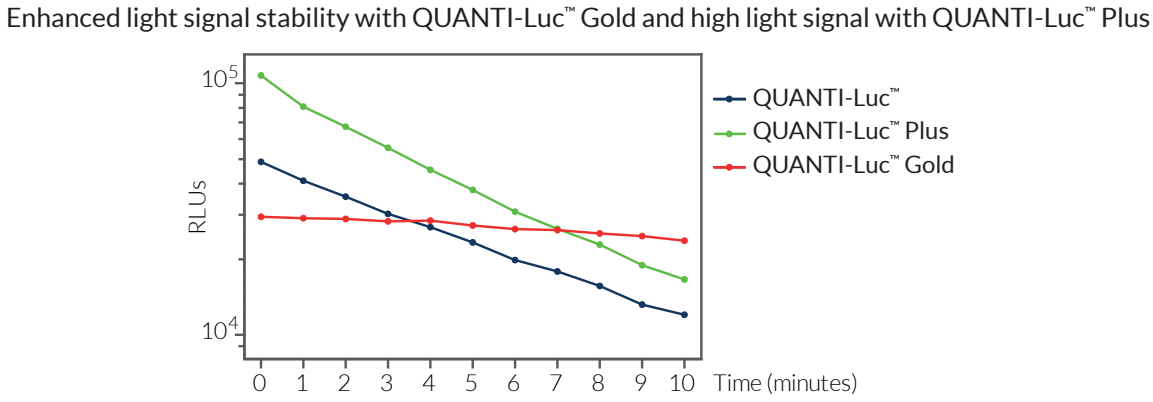

Figure 1: Lucia luciferase activity detection with QUANTI-Luc™ Gold (QUANTI-Luc™ Plus with QLC Stabilizer), QUANTI-Luc™ Plus (without QLC Stabilizer) and QUANTI-Luc™. THP1-Dual™ cells were treated with a STING agonist, 2'3'-cGAMP (10 µg/ml), to activate the interferon regulatory factor (IRF)-inducible Lucia luciferase reporter gene. After overnight incubation, the IRF response was determined by measuring the relative light units (RLUs) with a luminometer using 20 µl of cell culture supernatant and 50 µl of detection medium. RLUs were measured every minute for 10 minutes.

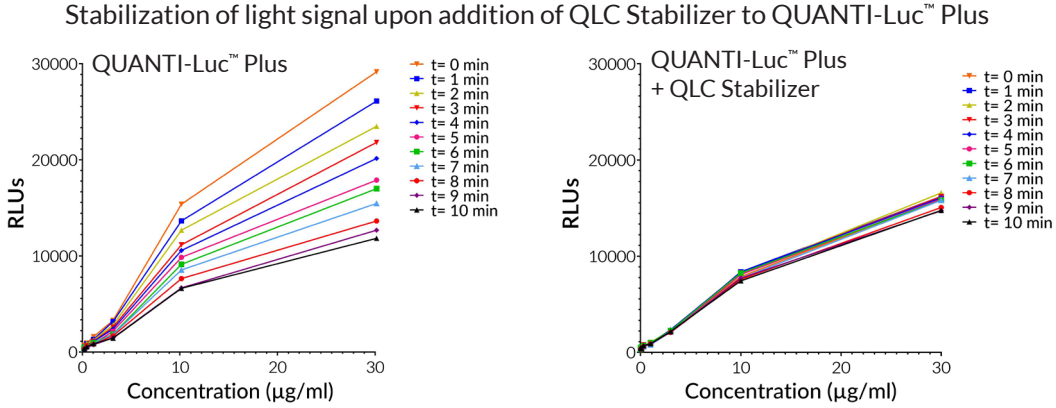

Figure 2: Monitoring of Lucia luciferase reporter activity using QUANTI-Luc™ Plus alone or with QLC Stabilizer (QUANTI-Luc™ Gold) upon variation of agonist concentration. THP1-Dual™ cells were treated with increasing concentrations of 2'3'-cGAMP to activate the IRF-inducible Lucia luciferase reporter gene. After overnight incubation, the IRF response was determined by measuring the relative light units (RLUs) with a luminometer using 20 µl of cell culture supernatant and 50 µl of detection medium. RLUs were measured every minute for 10 minutes. The dose-response curves for QUANTI-Luc™ Gold superimpose for each time measurement, which demonstrate the stability of the light signal.

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