

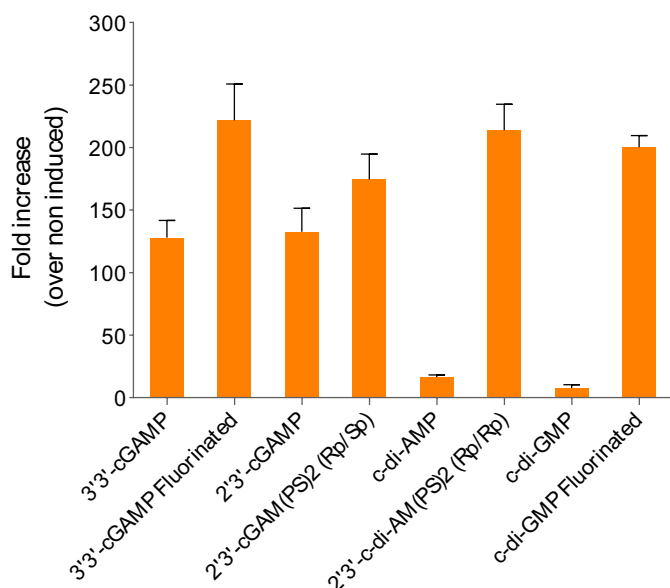
Validation data for STING ligands

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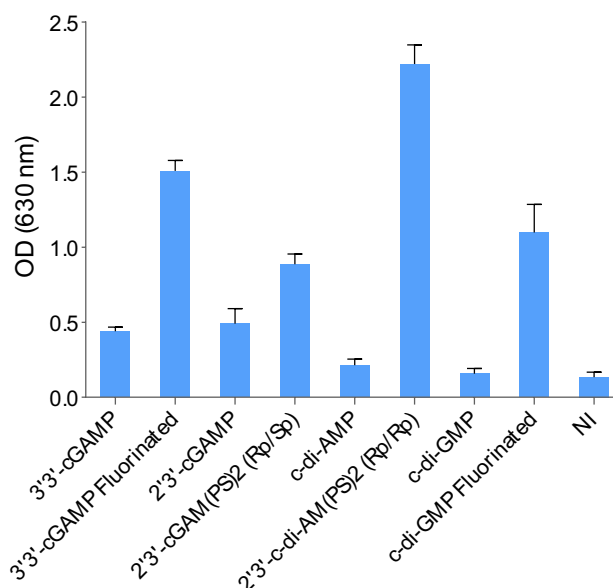
Version 23K28-MM

Cyclic dinucleotides (CDNs) bind to and activate STING, leading to a potent type I interferon (IFN) response. CDNs are important messengers in bacteria, affecting numerous responses of the prokaryotic cell, but also in mammalian cells, acting as agonists of the innate immune response. For your research needs, InvivoGen provides a large collection of high quality CDNs. They are chemically synthesized and are characterized by UHPLC, NMR and MS. For each lot, the biological activity is validated and the absence of bacterial contamination (e.g. endotoxins) is verified using cell-based assays. The activity of these CDNs has been compared (see Figures 1 and 2) using InvivoGen's THP1-Dual™ cells, a cell line derived from the human THP-1 monocyte cell line by stable integration of two inducible reporter constructs. As a result, these cells allow the simultaneous study of the IFN regulatory factor (IRF) pathway, by assessing the activity of a secreted Lucia luciferase, and the NF- κ B pathway, by monitoring the activity of SEAP.

IRF RESPONSE (Lucia luciferase reporter)



NF- κ B RESPONSE (SEAP reporter)



THP1-Dual™ cells were stimulated for 24 hours with the STING ligands as shown (all at 10 μ g/ml).

Figure 1: The IRF response was assessed by measuring the activity of Lucia luciferase in the supernatant using QUANTI-Luc™ 4 Lucia/Gaussia. Data are shown in fold response over non-induced cells (mean \pm SEM).

Figure 2: The NF- κ B-induced SEAP activity was assessed using QUANTI-Blue™ Solution, a SEAP detection reagent. Data are shown as optical density (OD) at 630 nm (mean \pm SEM). Non-induced cells (NI) have been included as a negative control.

TECHNICAL SUPPORT

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