# Validation data for Jurkat-Dual™ Cells

https://www.invivogen.com/jurkat-dual-cells

For research use only

Version 21L22-MM

Jurkat-Dual™ cells were derived from the human T lymphocyte-based Jurkat cell line by the stable integration of two inducible reporter constructs: Lucia luciferase and SEAP (secreted embryonic alkaline phosphatase). As a result, they allow the simultaneous study of the NF-κB pathway, by assessing the activity of Lucia luciferase, and the IRF (interferon regulatory factor) pathway, by monitoring the activity of SEAP.

Jurkat-Dual™ cells induce the activation of NF-κB and produce Lucia luciferase in response to TNF-α and T-lymphocyte mitogens, such as phytohemagglutinin (PHA) and concanavalin A (ConA). Additionally, they trigger the IRF pathway and produce SEAP upon stimulation with type I interferons (IFNs) or poly(I:C) (**Figure 1**).

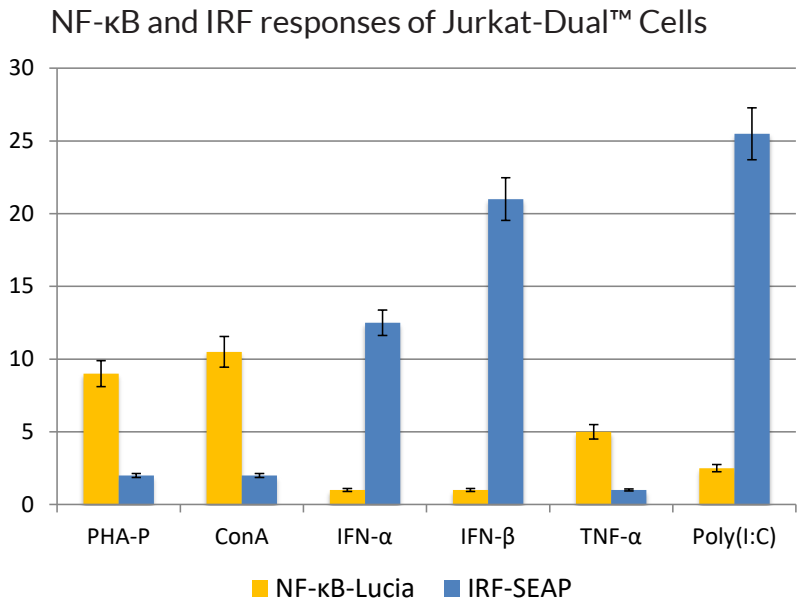


**Figure 1. NF-κB/IRF dual response of Jurkat-Dual™ cells to various stimuli.** Cells were incubated with 20 µg/ml of the mitogens phytohemagglutinin-P (PHA-P, the protein form of PHA) or concanavalin A (ConA), 300 IU/ml IFN-α, 300 IU/ml IFN-β, 100 ng/ml TNF-α or 10 µg/ml poly(I:C). After 24h incubation, NF-κB and IRF activation was assessed by measuring the levels of SEAP and Lucia luciferase in the supernatant using QUANTI-Luc™ or QUANTI-Blue™ Solution, respectively.


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