

Validation data for FK506

<https://www.invivogen.com/fk506>

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Version 22F20-MM

FK506 is a potent calcineurin inhibitor. Calcineurin is a calcium-dependent enzyme that activates the cytoplasmic nuclear factor of activated T cell (NFAT), a transcription factor involved in T cell activation, differentiation, and self-tolerance. The ability of FK506 to inhibit calcineurin signaling was validated using InvivoGen's Jurkat-Lucia™ NFAT cells (**Figure 1**). These cells stably express an NFAT-inducible Lucia luciferase reporter gene. The combination of ionomycin and phorbol myristate acetate (PMA) can be used to activate NFAT in these cells. NFAT activation can be readily measured as a bioluminescent signal produced by the Lucia luciferase using the detection reagent QUANTI-Luc™.

Dose-dependent inhibition of calcineurin signaling

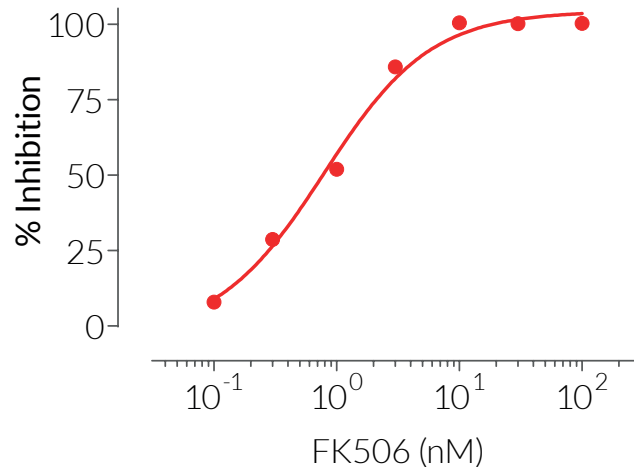


Figure 1: FK506 is a potent inhibitor of calcineurin signaling pathways.

Jurkat-Lucia™ NFAT cells were incubated overnight at 37°C in the presence of increasing concentrations of FK506 together with 10 µg/ml of ionomycin and 50 ng/ml of PMA. The next day, the inhibitory activity of FK506 was determined by measuring the reduction of Lucia luciferase production in the supernatant using the QUANTI-Luc™ detection reagent. Data are shown as percentage (%) inhibition.

TECHNICAL SUPPORT

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