Validation data for BX795

https://www.invivogen.com/bx795

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Version 22F08-MM

BX795 is a potent inhibitor of the IkB kinases TANK-binding kinase 1 (TBK1) and IkappaB kinase-epsilon (IKKε). TBK1 and IKKε play a central role in the innate immune response. Notably, these noncanonical IkappaB kinase homologs are essential components of the interferon regulatory factor (IRF) signaling pathway.
Stimulation of B16-Blue™ IFN-α/β cells with murine IFN-α or type I IFN inducers, such as the RIG-I ligand triphosphate double-stranded RNA (5'ppp-dsRNA) delivered intracellularly, triggers the production of SEAP by the activation of the IRF-inducible promoter. Levels of SEAP in the supernatant can be easily determined with QUANTI-Blue™ Solution, a medium that turns purple/blue in the presence of SEAP and by reading the optical density (OD) at 630 nm. Addition of BX795 to stimulated cells resulted in a reduction of the observed signal attributed to the inhibition of the TBK1/IKKε pathway for dsRNA and the inhibition of IKKε/STAT1 pathway for mIFN-α. **(Figure 1)**.

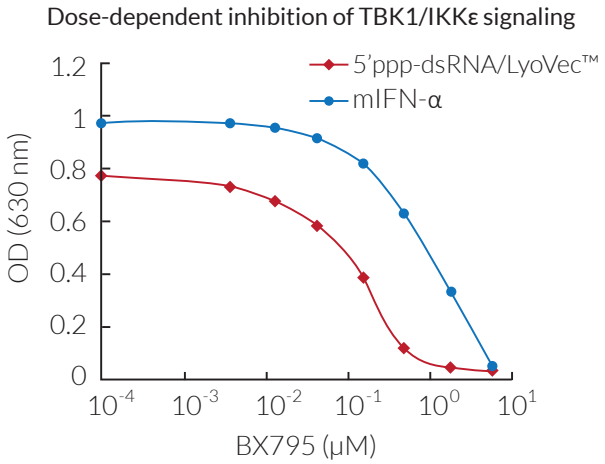

Figure 1: BX795 inhibits TBK1/IKKε signaling in a dose-dependent manner. B16-Blue™ IFN-α/β cells were incubated for 6 hours with varying concentrations of BX795 prior to overnight stimulation with 1 µg/ml of 5'ppp-dsRNA/LyoVec™ or $1x10^4$ U/ml mIFN-α. Levels of SEAP in the supernatant were measured after incubation with QUANTI-Blue™ Solution by reading the optical density (OD) at 630 nm.

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