Validation data for HEK-Blue™ mDectin-1b cells

http://www.invivogen.com/hek-blue-mdectin1b

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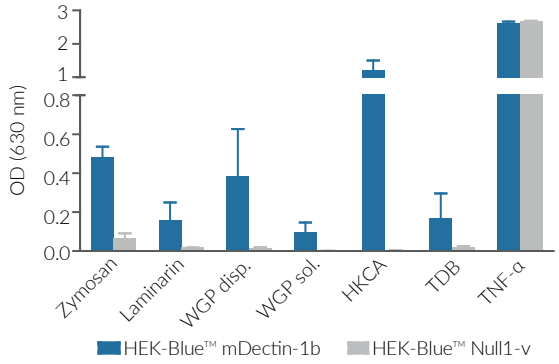
Dectin-1 is alternatively spliced into 2 major isoforms: a full-length A isoform and a 'stalkless' B isoform, which do not induce the same response to soluble and particulate β-glucans. We have engineered HEK-Blue cells that stably express high levels of murine Dectin-1b isoform and an NF-κB -inducible secreted alkaline phosphatase (SEAP) reporter gene. These cells also express genes involved in the Dectin-1 signaling pathway leading to NF-κB activation.
HEK-Blue™ mDectin-1b reporter cells are activated by Dectin-1 ligands, however, their responses to soluble and particulate β-glucans differ. These cells respond better to particulate ligands such as Heat Killed *Candida albicans* (HKCA), Zymosan, or WGP dispersible, than to soluble ligands, such as Laminarin and WGP soluble. HEK-Blue™ mDectin-1b cells do not respond to other CLR ligands such as trehalose-6,6-dibehenate (TDB), a Mincle ligand. HEK-Blue™ mDectin-1b reporter cells allow to determine the biological activity of soluble and particulate compounds in a specific manner.

Evaluation of NF-κB responses to Dectin-1 ligands



NF-κB responses of HEK-Blue™ mDectin-1b and HEK-Blue™ Null I-v cells (control cell line) to Dectin-1 ligands. Cells were incubated with particulate ligands such as Zymozan (10 µg/ml), WGP dispersible (100 µg/ml) and HKCA (3 x10^6 cells/ml), or soluble ligands such as Laminarin (100 µg/ml), WGP soluble (10 µg/ml) or TDB (10 µg/ml). TNF-α (10 ng/ml) was used as a positive control. After 24h, SEAP activity was assessed in the supernatant using QUANTI-Blue™, by reading the optical density (OD) at 630 nm.

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