PRR LIGAND SCREENING SERVICE

Finding the needle just got easier

- Our expertise will bring you the data you need
- Cost effective
- Screening flexibility, Reliable & Recognized

There is a growing interest in the targeting of Toll-like receptors (TLRs) and other pattern recognition receptors (PRRs) for drug discovery research. As a recognized industry leader in innate immunity, InvivoGen provides a high quality immunomodulatory compound screening service to assist our clients' drug discovery and development needs.

Screening Service for Ligands of PRRs:

TLRs (2,3,4,5,7,9),
NOD1, NOD2,
RIG-I, MDA-5,
STING
Dectin-1 & Mincle

www.invivogen.com/custom-tlr-screening

InvivoGen

Immunomodulatory Compound Screening Service

InvivoGen has developed a large collection of cell-based assays to detect compounds that activate or block the immune system through induction of PRRs. Compounds can be tested for TLR, NOD1/2, RIG-I/MDA-5, Dectin-1, Mincle and STING activity. Our sensitive cellular assays feature an NF-κB-inducible SEAP (secreted embryonic alkaline phosphatase) or an IRF (interferon regulatory factor)-inducible sLUC (secreted luciferase) reporter gene as the read-out. Upon stimulation, activation of the NF-κB or IRF pathways is monitored using proprietary detection assays designed to provide rapid and reliable results.

The Screening Service

Two choices of services are offered, Compound Profiling and Compound Dose Response, that can be performed sequentially or individually.

Compound Profiling (level 1):

Single dose testing on a set of PRRs.

Screening is performed at a single concentration, typically a 1/10 dilution of the original compound/sample solution provided, or customer specified.

Compound Dose Response (level 2):

Dose response on one or several PRRs.

Three concentrations of the compound(s), typically 1/10, 1/100 and 1/1000 dilutions of the original compound/sample solution, are tested on the PRR(s) recognizing the compound(s) as determined in level 1 or specified by the customer.

PRODUCT	CAT. CODE	PRICE
Compound Profiling	tlrl-test1	From 800€ *
Compound Dose Response	tlrl-test2	From 600€ *

A detailed report is prepared and provided to the customer electronically. All procedures are performed according to strict guidelines. Confidentiality is guaranteed.

* Please enquire for more information

• TLR Ligand Screening

The sample is tested on human or mouse TLR2, 3, 4, 5, 7, 8, and 9. Agonist and antagonist assays can be performed.

• NOD1/2 Ligand Screening

The sample is tested on human and/or mouse NOD1 and NOD2.

• RIG-I/MDA-5 Ligand Screening

The sample is tested on human RIG-I and/or MDA-5.

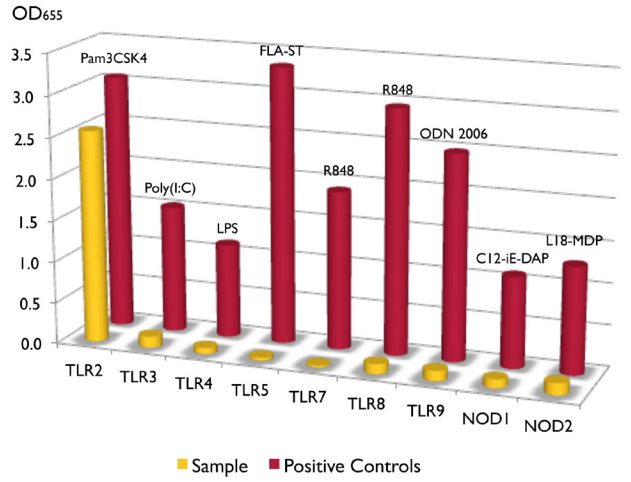
• Dectin-1 & Mincle Ligand Screening

The sample is tested on C-type lectin receptors Dectin-1 and Mincle.

• STING Ligands Screening

The sample is tested on human STING

An example of Compound Profiling



HEK-Blue™ TLR (human TLR2, 3, 4, 5, 7, 8, 9) and HEK-Blue™ NOD (human NOD1 or NOD2) cells were stimulated with 1/10 dilution of the sample solution provided and a fixed concentration of the positive controls: 100 ng/ml Pam3CSK4 (TLR2), 1 µg/ml poly(I:C) (TLR3), 100 ng/ml LPS-EK (TLR4), 100 ng/ml FLA-ST UP (TLR5), 10 µg/ml R848 (TLR7/8), 10 µg/ml ODN 2006 (TLR9), 10 µg/ml C12-iE-DAP (NOD1) and 100 ng/ml L18-MDP (NOD2). After 24h incubation, TLR-induced NF-κB activation was assessed by measuring the levels of SEAP in the supernatants of HEK-Blue™ cells using QUANTI-Blue™.

Recent articles using InvivoGen's Screening Service

Irizarry-Caro JA. *et al.*, 2018. Drugs Implicated in Systemic Autoimmunity Modulate Neutrophil Extracellular Trap Formation. Arthritis Rheumatol., DOI: 10.1002/art.40372

Carmona-Rivera C. *et al.*, 2017. A role for muscarinic receptors in neutrophil extracellular trap formation and levamisole-induced autoimmunity. JCI Insight., 2(3):e89780.

Scoville CD. & Rasmussen D., 2017. Description and characterization of a unique human immunoglobulin G1 kappa idiotype found in placental tissue. Placenta., 50:84-93.

More information on our website, please visit: www.invivogen.com

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