

CUSTOM SERVICES

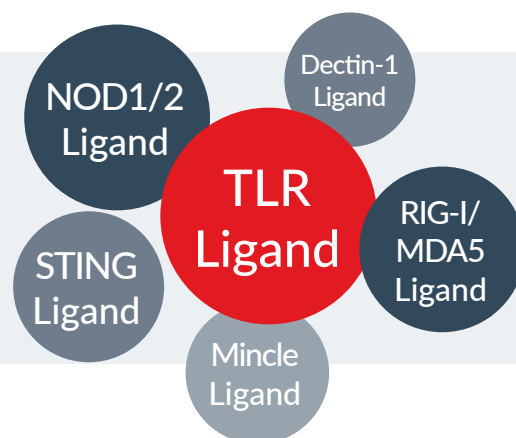
PRR LIGAND SCREENING



What secrets are your samples hiding?

Our screening service will unlock the mystery.

- ❖ Screening flexibility
- ❖ Short turnaround time
- ❖ Cost-effective and reliable



There is a growing interest in the targeting of Toll-like receptors (TLRs) and other pattern recognition receptors (PRRs) for drug discovery research. InvivoGen can screen your compounds to identify potent activators or inhibitors of innate immune signaling pathways involved in infectious diseases, auto-immunity and cancer. Let InvivoGen's high quality immunomodulatory compound screening service assist with your drug discovery and development needs.

Immunomodulatory Compound Screening Service

Over the past several years InvivoGen has developed a large array of functional whole-cell assays to screen for compounds that activate or inhibit pattern recognition receptors (PRRs), with an emphasis on TLRs, NOD1/2, RIG-I/MDA-5, C-type lectins and STING. These sensitive assays employ engineered HEK293 cells that utilize classical reporter systems: an NF- κ B-inducible SEAP (secreted embryonic alkaline phosphatase) and/or an IRF (interferon regulatory factor)-inducible sLUC (secreted luciferase). Activation of the NF- κ B and/or IRF pathways by the test compounds is detected using InvivoGen's proprietary methods, which we have designed for its reliability.

The Screening Service

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

- **Compound Profiling:** 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:** 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 compound profiling or specified by the customer.

➔ TLR Ligand Screening

The TLR ligand screening service utilizes the HEK-Blue TLR cells.

➔ NOD1/2 Ligand Screening

The NOD1/2 ligand screening service utilizes the HEK-Blue™ NOD cells.

➔ STING Ligand Screening

The STING ligand screening service utilizes the THP1-Dual™ and THP1-Dual™ KO-STING cells.

➔ RIG-I/MDA-5 Ligand Screening

The RIG-I/MDA-5 ligand screening service utilizes HEK293 cell lines that exploit the IRF pathway and a secreted luciferase reporter assay.

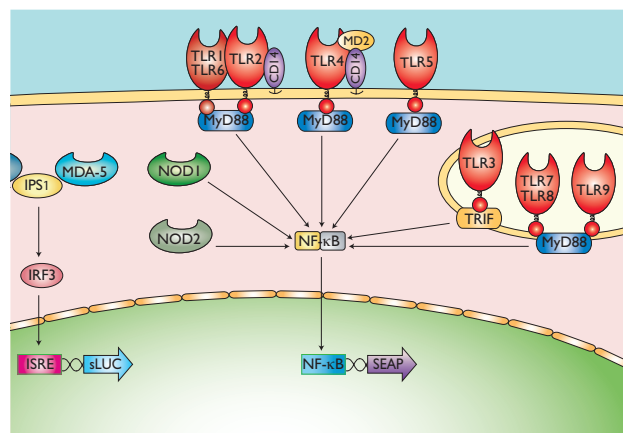
➔ Dectin-1 Ligand Screening

The Dectin-1 ligand screening service utilizes the HEK-Blue™ Dectin-1 cells.

➔ Mincle Ligand Screening

The Mincle ligand screening service utilizes the HEK-Blue™ hMincle cell line.

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



Simplified representation of the PRR pathways

Recent articles using InvivoGen's Screening Service

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

Ebisawa M. et al., Heat-killed cell preparation of *Corynebacterium glutamicum* stimulates the immune activity and improves survival of mice against enterohemorrhagic *Escherichia coli*. 2017 Biosci Biotechnol Biochem. 81(5):995-1001.

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

PRODUCT	CATALOG CODE
Compound Profiling	tlr1-test1
Compound Dose Response	tlr1-test2