

# iLite® TLR4

## ASSAY READY CELLS

**iLite TLR4 Assay Ready Cells are ideal for measuring the activity of both TLR4 agonist and antagonist drugs, as well as any neutralizing antibodies against such drugs – all using the same assay.**

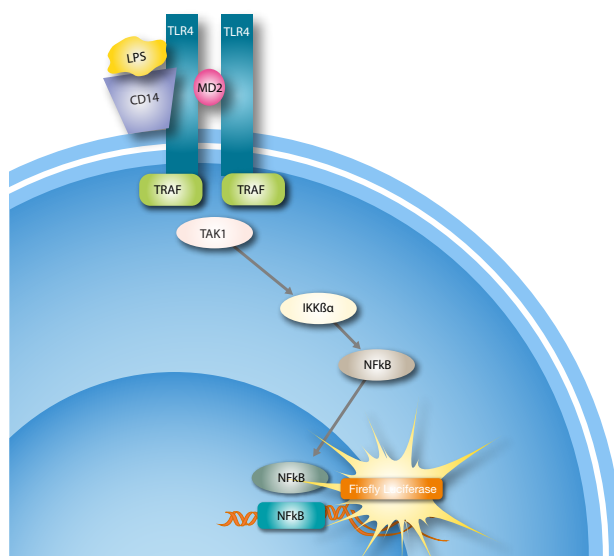
Toll-like receptors (TLRs) are a family of pattern recognition receptors that induce pro-inflammatory responses to invading pathogens, such as bacteria, fungi, viruses, and parasites. TLR4, the most extensively studied TLR, is activated by lipopolysaccharide (LPS) – a common component of Gram-negative bacteria. In addition to LPS, several damage-associated molecular patterns (DAMPs) have also been shown to be capable of activating TLR4. Upon activation of TLR4, downstream signaling pathways are activated, leading to the production of inflammatory cytokines and chemokines.

In addition to its important role in innate immunity, TLR4 is also essential in the development of many autoimmune diseases, which has led to increased interest in the development of TLR4 antagonists as potential treatments for these diseases.

Furthermore, TLR4 agonists are explored within the oncology field with the aim of using their immunostimulatory effects to enhance the immune response against tumor cells.

iLite TLR4 Assay Ready Cells are based on a human erythro-leukemic cell line that has been genetically engineered and optimized to quantify LPS and detect TLR4 inhibiting activity by specific and proportional expression of Firefly Luciferase. A second Renilla Luciferase reporter gene can be used for the normalization of cell counts and to compensate for serum matrix effects.

The **iLite® TLR4** reporter-gene assay comes in an assay-ready format, which translates to a fast, streamlined work process with low variability.



**Principle of the iLite TLR4 assay.** Activation of TLR4 by LPS leads to a proportional expression of Firefly Luciferase.

### iLite® TLR4 Assay Ready Cells

Product code	BM4025
Format	Assay Ready Cells
Application	The <i>iLite</i> ® TLR4 Assay Ready Cells can be used for the quantification of LPS and for detection of TLR4 inhibiting activity in test samples, including human serum. Application Notes for the following assays are available: <ul style="list-style-type: none"> <li>• Quantification of LPS</li> <li>• Quantification of TLR4 inhibitor</li> </ul>
Incubation time	Drug Assay 5 hours
Detection system	Luminescence
Availability	Research Use Only (RUO)*

\*These products are intended for professional research use only. The data and results originating from using the products, should not be used either in diagnostic procedures or in human therapeutic applications.

In accepting delivery of *iLite*® Assay Ready Cells the recipient agrees not to sub-culture these cells, attempt to sub-culture them or to give them to a third party, and recipient is only to use them directly in assays. The *iLite*® cell-based products are covered by patents which are the property of Svar Life Science AB and any attempt to reproduce the delivered *iLite*® Assay Ready Cells would constitute an infringement.

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