

iLite[®] TLR9

ASSAY READY CELLS

iLite TLR9 Assay Ready Cells are ideal for the quantification of class B CpG oligonucleotides and the evaluation of inhibiting activity of new compounds.

Our immune system detects and responds to various pathogen-expressed molecules, such as lipopolysaccharides, viral RNA, or bacterial DNA, through specialized families of receptors. The Toll-like receptors are the most extensively studied of these receptor families. Toll-like receptor 9 (TLR9) specifically recognizes unmethylated CpG nucleotides, which are common in viral and bacterial DNA, but not in human DNA. Upon detection of CpG motifs, TLR9 is activated and initiates a cascade of innate and adaptive immune responses.

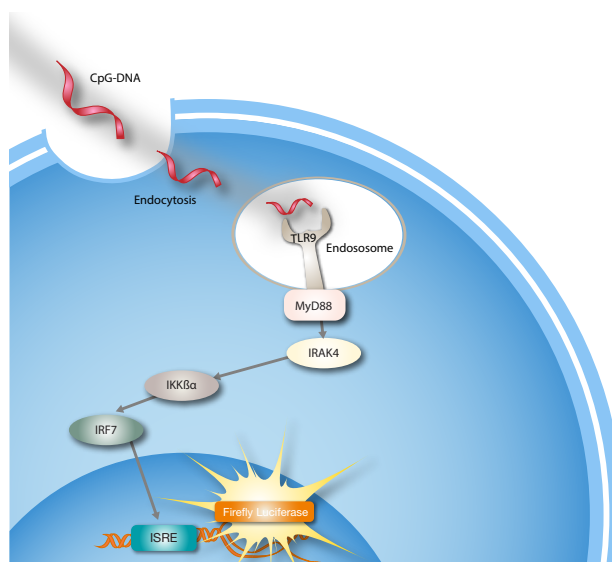
As TLR9 participates in the activation of the innate immune system, TLR9 agonists have great potential as vaccine adjuvants and as therapies for the treatment of cancer and infectious and allergic diseases. In addition, they have been shown to be connected to the immunotoxicity against AAV vectors.

iLite[®] TLR9 Assay Ready Cells are based on the human erythromyeloblastoid leukemia cell line (K562) that has been genetically engineered and optimized to be responsive to unmethylated CpG islands through TLR9, resulting in a proportional expression of Firefly Luciferase. Normalization of cell count and serum matrix effects are obtained by a second reporter gene, a Renilla Luciferase reporter gene construct, under the control of a constitutive promoter.

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The **iLite[®] TLR9** reporter-gene assay comes in an assay-ready format, which translates to a fast, streamlined work process with low variability.



Principle of the *iLite* TLR9 assay. Activation of TLR9 by unmethylated CpG leads to a proportional expression of Firefly Luciferase.

<i>iLite[®] TLR9 Assay Ready Cells</i>	
Product code	BM6069
Format	Assay Ready Cells
Application	The <i>iLite[®] TLR9 Assay Ready Cells</i> can be used for the quantification of class B CpG oligonucleotides, and to evaluate the inhibiting activity of new compounds. Application Notes for the following assays are available: <ul style="list-style-type: none"> • Quantification of class B CpG oligonucleotides • Quantification of TLR9 inhibitor
Incubation time	Drug Assay 6 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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