CELL CULTURE

REPORTER CELL LINES



Discover the secrets of cell signaling

- Engineered from HEK293, THP-1, A549, Jurkat cells and more
- Extensively tested for viability, biological activity, and absence of mycoplasma
- Compatible with high-throughput screening

InvivoGen offers a large panel of human and mouse reporter cell lines designed to study various signaling pathways. They can be used for the screening of stimulatory or inhibitory molecules or antibodies.

Our cells express one or two inducible reporter genes, both encoding secreted proteins; SEAP (secreted embryonic alkaline phosphatase) and Lucia luciferase. They offer the great benefit of allowing for multiple and non-destructive readings over time.

A wide range of reporter cells

Transcription factors

PRRs

Inflammasomes

Autophagy

Cytokines

Immune checkpoints

ADCC & ADCP

COVID-19

WWW.INVIVOGEN.COM/CELL-LINES

InvivoGen

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InvivoGen's expanding cell line collection is designed to provide a rapid, sensitive and reliable method to investigate signaling pathways related to innate immunity and more.

Various cell types

InvivoGen's cell lines derive from immortalized cell lines widely used for *in vitro* biomedical research. They were isolated from various human or mouse tissues, and grow as adherent or suspension cells.

	NAME	CELL TYPE	TISSUE	DISEASE	CULTURE	APPLICATIONS
HUMAN	**A549**	Epithelial	Lung	Carcinoma	Adherent	Cancer research, toxicology, high throughput screening
	HCT116	Epithelial-like	Colon	Carcinoma	Adherent	Cancer research, drug development
	HEK293	Epithelial	Kidney, embryo	None	Adherent	Toxicology, high throughput screening, bioproduction
	Jurkat	T Lymphoblast	Peripheral blood	T cell leukemia	Suspension	Immunology research
	Ramos	B Lymphocyte	-	Burkitt's Lymphoma	Suspension	Immunology research
	THP-1	Monocyte	Peripheral blood	Leukemia	Suspension	Immunology research, toxicology
	H1080	Epithelial-Like	Connective tissue	Fibrosarcoma	Adherent	Cancer Research
	Raji B	Lymphoblast-like	Peripheral Blood	Burkitt's lymphoma	Suspension	Immunology Research
MOUSE	**B16**	Epithelial-like	Skin	Melanoma	Adherent	Cancer research, toxicology, high throughput screening
	J774.1	Macrophage	Ascites	Sarcoma	Adherent	Immunology research
	RAW 264.7	Macrophage	Ascites	Leukemia	Adherent	Immunology research

Inducible expression of one or two reporter genes

Most of our cell lines express an NF-κB-inducible SEAP (secreted embryonic alkaline phosphatase) and/or IRF-inducible Lucia luciferase. Both reporter proteins are secreted and thus can be readily detected in the cell supernatant using the appropriate detection reagent *(see page 11)*.

Thoroughly tested

InvivoGen's cell lines are extensively tested for viability, stability, biological activity, and absence of mycoplasma to ensure strong and reproducible results. Moreover, we provide detailed handling and experimental procedures for all cell lines, to minimize the need for optimization or troubleshooting by the end-user.



CELL LINE RELATED PRODUCTS

DETECTION REAGENTS

for SEAP:
- HEK-Blue™ Detection
- QUANTI-Blue™

for Lucia luciferase:
- QUANTI-Luc™ 4 Lucia/Gaussia
- QUANTI-Luc™ 4 Renilla



See page 11

SELECTIVE ANTIBIOTICS

- Blasticidin
- G418 Sulfate
- Hygromycin B Gold
- Phleomycin
- Puromycin
- Zeocin®



See page 12

CELL PROTECTION REAGENTS

- Detection of mycoplasma contamination & endotoxins
- Prevention & Elimination of mycoplasma, bacterial & fungal contaminations



See page 12

TRANSCRIPTION FACTOR REPORTER CELLS

Transcription factor reporter cells comprise a large collection of human and murine cell lines engineered to report the activation of the two major innate immune signaling pathways, NF-kB and IRF, as well as the NFAT pathway. They express the SEAP and/or Lucia luciferase reporter proteins in a transcription factor-dependent manner.

CELL LINE	PRODUCT	PATHWAY	REPORTER	CAT. CODE
NF-κB/IRF REPORTER CELLS				
A549 (human)	A549-Dual™	NF-κB & IRF	SEAP / Lucia	a549d-nfis
B16 (mouse)	B16-Blue™ ISG	IRF	SEAP	bb-ifnabg
HCT116 (human)	HCT116-Dual™	NF-κB & IRF	SEAP / Lucia	hctd-nfis
HEK293 (human)	293-Dual™ Null	Double readout (IRF / IFN-β), Lucia knocked into IFN-β	SEAP / Lucia	293d-null
	HEK-Blue™ ISG	IRF	SEAP	hkb-isg
	HEK-Blue-Lucia™ Null	Double readout (NF-κB / IL-8), Lucia knocked into IL-8	SEAP / Lucia	hkd-nullni
	HEK-Dual™	NF-κB & IRF	SEAP / Lucia	hkd-nfis
J774 (mouse)	J774-Dual™	NF-κB & IRF	SEAP / Lucia	j774d-nfis
Jurkat (human)	Jurkat-Dual™	NF-κB & IRF	Lucia / SEAP	jktd-isnf
Ramos (human)	Ramos-Blue™	NF-κB / AP-1	SEAP	rms-sp
	Ramos-Blue™ KD-MyD	NF-κB / AP-1, knockdown of MyD88	SEAP	rms-kdmyd
RAW (mouse)	RAW-Blue™	NF-κB / AP-1	SEAP	raw-sp
	RAW-Dual™	IRF & MIP-2 (NF-κB)	SEAP / Lucia	rawd-ismip
	RAW-Lucia™ ISG	IRF	Lucia	rawl-isg
	RAW-Lucia™ ISG-KO-IRF1	IRF, knockout of IRF1	Lucia	rawl-koirf1
	RAW-Lucia™ ISG-KO-IRF3	IRF, knockout of IRF3	Lucia	rawl-koirf3
	RAW-Lucia™ ISG-KO-IRF5	IRF, knockout of IRF5	Lucia	rawl-koirf5
	RAW-Lucia™ ISG-KO-IRF7	IRF, knockout of IRF7	Lucia	rawl-koirf7
	RAW-Lucia™ ISG-KO-TBK1	IRF, knockout of TBK1	Lucia	rawl-kotbk
	RAW-Lucia™ ISG-KO-TRIF	IRF, knockout of TRIF	Lucia	rawl-kotrif
THP-1 (human)	THP1-Blue™ NF-κB	NF-κB	SEAP	thp-nfkbv2
	THP1-Lucia™ NF-κB	NF-κB	Lucia	thpl-nfkbv2
	THP1-Blue™ ISG	IRF	SEAP	thp-isg
	THP1-Lucia™ ISG	IRF	Lucia	thpl-isg
	THP1-Dual™	NF-κB & IRF	SEAP / Lucia	thpd-nfis
	THP1-Blue™ KI-IP10	NF-κB & IRF, Lucia knocked into IP10 (CXCL10)	SEAP / Lucia	thpb-ip10kilc
	THP1-Dual™ KO-IFNAR2	NF-κB & IRF, knockout of IFNAR2	SEAP / Lucia	thpd-koifnar2
	THP1-Dual™ KO-IKKε	NF-κB & IRF, knockout of IKKε	SEAP / Lucia	thpd-koikke
	THP1-Dual™ KO-IRF1	NF-κB & IRF, knockout of IRF1	SEAP / Lucia	thpd-koirf1
	THP1-Dual™ KO IRF3	NF-κB & IRF, knockout of IRF3	SEAP / Lucia	thpd-koirf3
	THP1-Dual™ KO IRF5	NF-κB & IRF, knockout of IRF5	SEAP / Lucia	thpd-koirf5
	THP1-Dual™ KO IRF7	NF-κB & IRF, knockout of IRF7	SEAP / Lucia	thpd-koirf7
	THP1-Dual™ KO-MyD	NF-κB & IRF, knockout of MyD88	SEAP / Lucia	thpd-komyd
	THP1-Dual™ KO-TBK1	NF-κB & IRF, knockout of TBK1	SEAP / Lucia	thpd-kotbk
	THP1-Dual™ KO-TRIF	NF-κB & IRF, knockout of TRIF	SEAP / Lucia	thpd-kotrif
NFAT REPORTER CELLS				
Jurkat (human)	Jurkat-Lucia™ NFAT	NFAT	Lucia	jktl-nfat
	Jurkat-Lucia™ NFAT-CD28	Human CD28 / NFAT	Lucia	jktl-cd28
THP1 (human)	THP1-Lucia™ NFAT Cells	NFAT	Lucia	thpl-nfat

PRR REPORTER CELLS

InvivoGen offers a wide collection of reporter cell lines for the major families of pattern recognition receptors (PRRs). These cells report the activation of the NF-κB and/or IRF (or AhR) pathways through the secretion of the SEAP and/or Lucia reporters upon stimulation with a PRR cognate agonist.

- Cytosolic sugar sensors (ALPK1 & TIFA)
- C-type lectin receptors (CLRs)
- NOD receptors (NOD1/2)
- Cytosolic DNA sensors (CDSs) & STING
- RIG-I-like receptors (RLRs)
- Toll-like receptors (TLRs)

ALPK1/TIFA reporter cells

CELL LINE	PRODUCT	PRR KNOCKED OUT / PATHWAY	REPORTER	CAT. CODE
HEK 293 (human)	HEK-Blue™ KO-ALPK1	Knockout of ALPK1 / NF-κB	SEAP	hkb-koalpk
	HEK-Blue™ KO-TIFA	Knockout of TIFA / NF-κB	SEAP	hkb-kotifa

CLR reporter cells

CELL LINE	PRODUCT	PRR EXPRESSED / PATHWAY	REPORTER	CAT. CODE
CLR / NF-κB REPORTER CELLS				
HEK293 (human)	HEK-Blue™ hDectin-1a	Human Dectin-1a / NF-κB	SEAP	hkb-hdect1a
	HEK-Blue™ hDectin-1b	Human Dectin-1b / NF-κB	SEAP	hkb-hdect1b
	HEK-Blue™ mDectin-1b	Mouse Dectin-1b / NF-κB	SEAP	hkb-mdect1b
	HEK-Blue™ mDectin-2	Mouse Dectin-2 / NF-κB	SEAP	hkb-mdect2
	HEK-Blue™ hMincle	Human Mincle / NF-κB	SEAP	*contact us*
	HEK-Blue™ mMincle	Mouse Mincle / NF-κB	SEAP	hkb-mmcl

NOD reporter cells

CELL LINE	PRODUCT	PRR EXPRESSED / PATHWAY	REPORTER	CAT. CODE
NOD / NF-κB REPORTER CELLS				
HEK293 (human)	HEK-Blue™ hNOD1	Human NOD1 / NF-κB	SEAP	hkb-hnod1
	HEK-Blue™ hNOD2	Human NOD2 / NF-κB	SEAP	hkb-hnod2v2
	HEK-Blue™ mNOD1	Mouse NOD1 / NF-κB	SEAP	hkb-mnod1
	HEK-Blue™ mNOD2	Mouse NOD2 / NF-κB	SEAP	hkb-mnod2

ADDITIONAL CELL VIAL
OFFER

Buy one Cell line and **get 50% OFF** on additional vials



FAQ

Any questions about our cell lines ?

invivogen.com/frequently-asked-questions

CDS & STING reporter cells

CELL LINE	PRODUCT	PRR(S) EXPRESSED, KO, OR KI / PATHWAY(S)	REPORTERS	CAT. CODE
KO-CDS / IRF (& NF-κB) REPORTER CELLS				
RAW (mouse)	RAW-Lucia™ ISG-KO-cGAS	Knockout of cGAS / IRF	Lucia	rawl-kocgas
	RAW-Lucia™ ISG-KO-IFI16	Knockout of IFI16 / IRF	Lucia	rawl-koif16
	Raw-lucia™ ISG-KO-TREX1	Knockout of TREX / IRF	Lucia	rawl-kotrex
THP-1 (human)	THP1-Dual™ KO-cGAS	Knockout of cGAS / NF-κB & IRF	SEAP / Lucia	thpd-kocgas
	THP1-Dual™ KO-DNase2	Knockout of DNase2 / NF-κB & IRF	SEAP / Lucia	thpd-kodnase2
	THP1-Dual™ KO-IFI16	Knockout of IFI16 / NF-κB & IRF	SEAP / Lucia	thpd-koifi16
	THP1-Dual™ KO-SAMHD1	Knockout of SAMHD1 / NF-κB & IRF	SEAP / Lucia	thpd-kosamhd1
	THP1-Dual™ KO-TREX1	Knockout of TREX1 / NF-κB & IRF	SEAP / Lucia	thpd-kotrex
KO/KI-STING / cGas (IRF & NF-κB) REPORTER CELLS				
B16 (mouse)	B16-Blue™ ISG-KO-STING	Knockout of STING / IRF	SEAP	bb-kostg
HEK293 (human)	293-Dual™ hSTING-A162	Human S162A STING / double readout (IRF / IFN-β), Lucia knocked into IFN-β	SEAP / Lucia	293d-a162
	293-Dual™ hSTING-H232	Human H232 STING / double readout (IRF / IFN-β), Lucia knocked into IFN-β	SEAP / Lucia	293d-h232
	293-Dual™ hSTING-R232	Human R232 STING / double readout (IRF / IFN-β), Lucia knocked into IFN-β	SEAP / Lucia	293d-r232
	HEK-Blue™ ISG-KO-STING	Knockout of STING / IRF	SEAP	hkb-kostg
	HEK-Blue™ STAT6-hSTING R232	Human R232 STING / STAT6	SEAP	hkb-st6r232
	HEK-Dual™ cGas Cells	NF-κB-SEAP & IRF	Lucia	hkd-cgas
RAW (mouse)	RAW-Lucia™ ISG-KO-STING	Knockout of STING / IRF	Lucia	rawl-kostg
THP-1 (human)	THP1-Dual™ KI-hSTING-A162	Knockin of S162A STING / NF-κB & IRF	SEAP / Lucia	thpd-a162
	THP1-Dual™ KI-hSTING-H232	Knockin of H232 STING / NF-κB & IRF	SEAP / Lucia	thpd-h232
	THP1-Dual™ KI-hSTING-M155	Knockin of M155 STING / NF-κB & IRF	SEAP / Lucia	thpd-m155
	THP1-Dual™ KI-hSTING-R232	Knockin of R232 STING / NF-κB & IRF	SEAP / Lucia	thpd-r232
	THP1-Dual™ KI-hSTING-S154	Knockin of S154 STING / NF-κB & IRF	SEAP / Lucia	thpd-s154
	THP1-Dual™ KO-STING	Knockout of STING / NF-κB & IRF	SEAP / Lucia	thpd-kostg

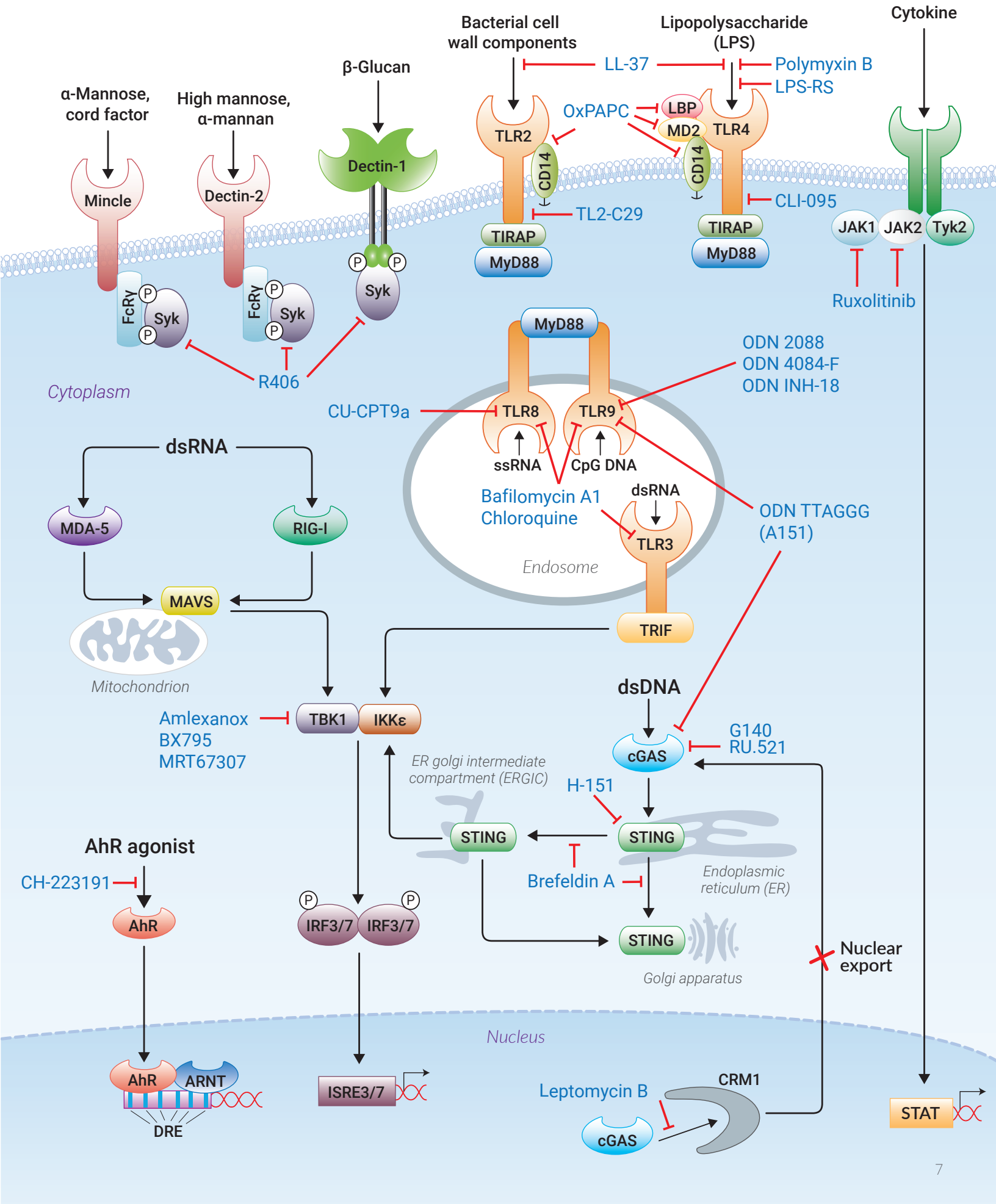
RLR reporter cells

CELL LINE	PRODUCT	PRR(S) EXPRESSED, KO, OR KI / PATHWAY(S)	REPORTERS	CAT. CODE
KO/KI-RLR / IRF (& NF-κB) REPORTER CELLS				
A549 (human)	A549-Dual™ KO-MAVS	Knockout of MAVS / NF-κB & IRF	SEAP / Lucia	a549d-komavs
	A549-Dual™ KO-MDA5	Knockout of MDA5 / NF-κB & IRF	SEAP / Lucia	a549d-komda5
	A549-Dual™ KO-RIG-I	Knockout of RIG-I / NF-κB & IRF	SEAP / Lucia	a549d-korigi
HEK293 (human)	HEK-Lucia™ RIG-I	Human RIG-I / IRF	Lucia	hkl-hrigi
	HEK-Dual™ RNA-Null	TLR3/RIG-I/MDA5 deficient reporter cells	SEAP / Lucia	hkd-rna-null
	HEK-Dual™ RNA-hMDA5 Cells	Specific MDA5 Reporter HEK293 Cells (TLR3 & RIG-I deficient)	SEAP / Lucia	hkd-rna-mda5
	HEK-Dual™ RNA-hRIG-I	Specific RIG-I Reporter HEK293 Cells (TLR3 & MDA5 deficient)	SEAP / Lucia	hkd-rna-rigi
	HEK-Dual™ RNA-hTLR3 Cells	Specific TLR3 Reporter HEK293 Cells (RIG-I & MDA5 deficient)	SEAP / Lucia	hkd-rna-tlr3
RAW (mouse)	RAW-Lucia™ ISG-KO-MAVS	Knockout of MAVS / IRF	Lucia	rawl-komavs
	RAW-Lucia™ ISG-KO-MDA5	Knockout of MDA5 / IRF	Lucia	rawl-komda5
	RAW-Lucia™ ISG-KO-RIG-I	Knockout of RIG-I / IRF	Lucia	rawl-korigi
THP-1 (human)	THP1-Dual™ KO-MAVS	Knockout of MAVS / NF-κB & IRF	SEAP / Lucia	thpd-komavs
	THP1-Dual™ KO-MDA5	Knockout of MDA5 / NF-κB & IRF	SEAP / Lucia	thpd-komda5
	THP1-Dual™ KO-RIG-I	Knockout of RIG-I / NF-κB & IRF	SEAP / Lucia	thpd-korigi

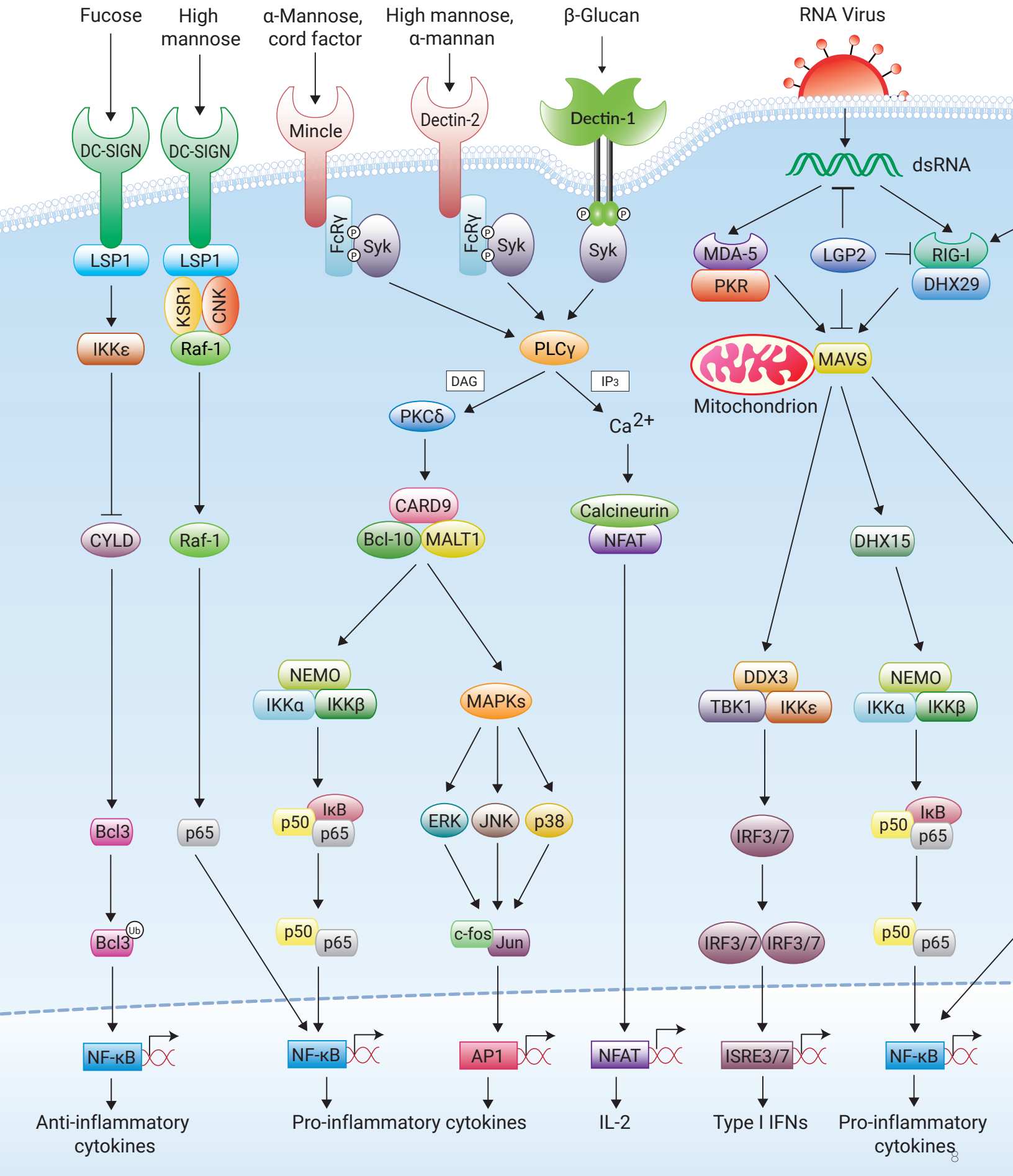
TLR reporter cells

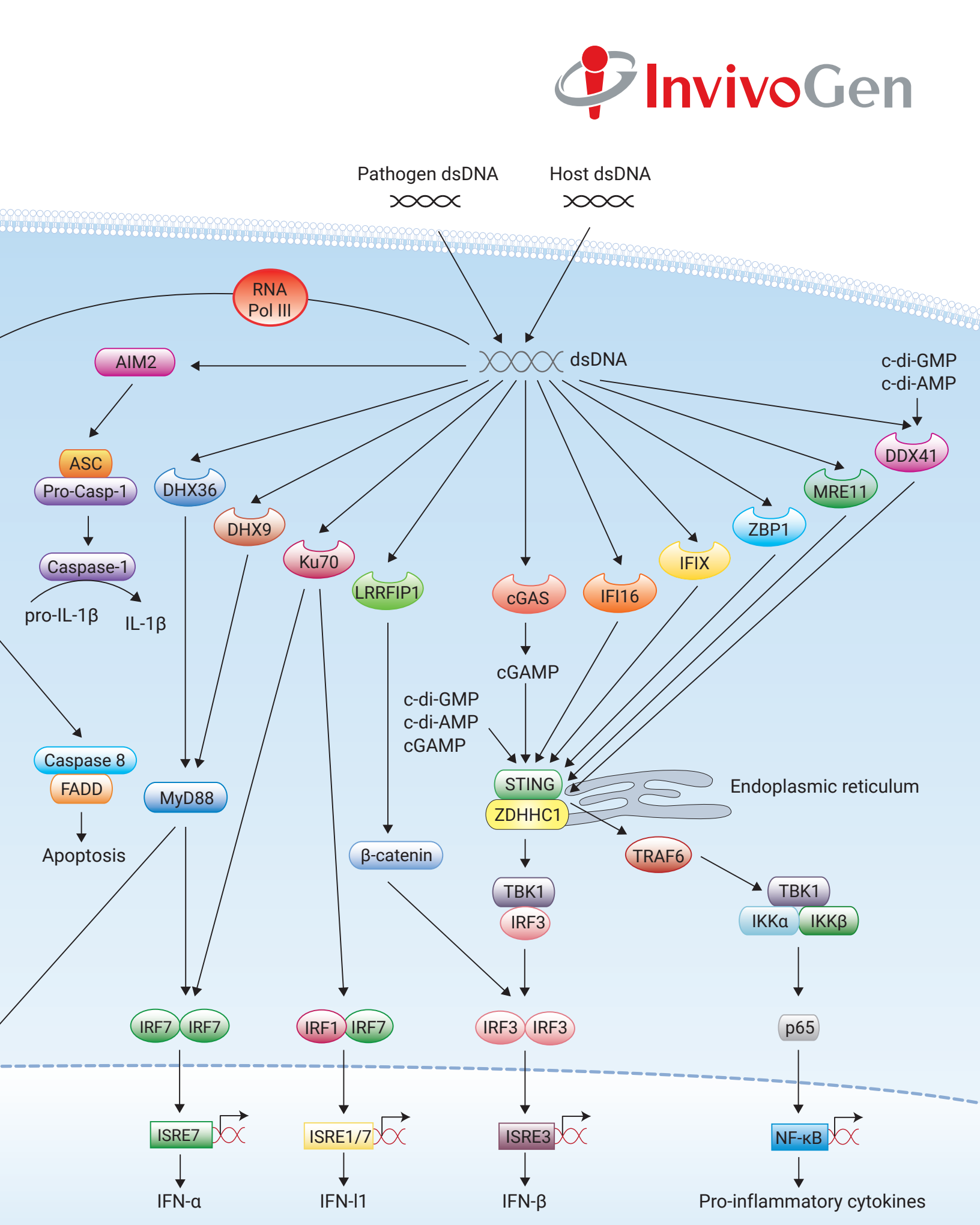
CELL LINE	PRODUCT	PRR(S) EXPRESSED OR KO / PATHWAY(S)	REPORTER	CAT. CODE
(KO-)TLR / NF-κB REPORTER CELLS				
HEK293 (human)	HEK-Blue™ hMD2-CD14	Human MD2-CD14 / NF-κB	SEAP	hkb-hmdcd
	HEK-Blue™ hTLR2	Human TLR2 / NF-κB	SEAP	hkb-htlr2
	HEK-Blue™ hTLR2-TLR1	Human TLR2 & TLR1/ NF-κB	SEAP	hkb-htlr21
	HEK-Blue™ hTLR2-TLR6	Human TLR2 & TLR6 / NF-κB	SEAP	hkb-htlr26
	HEK-Blue™ hTLR2 KO-TLR1/TLR6	Human TLR2, knockout of TLR2 & TLR6 / NF-κB	SEAP	hkb-htlr2k16
	HEK-Blue™ hTLR3	Human TLR3 / NF-κB	SEAP	hkb-htlr3
	HEK-Blue™ hTLR4	Human TLR4, MD2 & CD14 / NF-κB	SEAP	hkb-htlr4
	HEK-Blue™ hTLR5	Human TLR5 / NF-κB	SEAP	hkb-htlr5
	HEK-Blue™ hTLR7	Human TLR7 / NF-κB	SEAP	hkb-htlr7v2
	HEK-Blue™ hTLR8	Human TLR8 / NF-κB	SEAP	hkb-htlr8
	HEK-Blue™ hTLR9	Human TLR9 / NF-κB	SEAP	hkb-htlr9
	HEK-Blue™ mTLR2	Mouse TLR2 / NF-κB	SEAP	hkb-mtlr2
	HEK-Blue™ mTLR3	Mouse TLR3 / NF-κB	SEAP	hkb-mtlr3
	HEK-Blue™ mTLR4	Mouse TLR4, MD2 & CD14 / NF-κB	SEAP	hkb-mtlr4
	HEK-Blue™ mTLR5	Mouse TLR5 / NF-κB	SEAP	hkb-mtlr5
	HEK-Blue™ mTLR7	Mouse TLR7 / NF-κB	SEAP	hkb-mtlr7
	HEK-Blue™ mTLR8	Mouse TLR8 / NF-κB	SEAP	hkb-mtlr8
	HEK-Blue™ mTLR9	Mouse TLR9 / NF-κB	SEAP	hkb-mtlr9
	HEK-Blue-Lucia™ hTLR2	Human TLR2, double readout (NF-κB / IL-8), Lucia knocked into IL-8	SEAP / Lucia	hkd-htlr2ni
	HEK-Blue-Lucia™ hTLR3	Human TLR3, double readout (NF-κB / IL-8), Lucia knocked into IL-8	SEAP / Lucia	hkd-htlr3ni
	HEK-Blue-Lucia™ hTLR5	Human TLR5, double readout (NF-κB / IL-8), Lucia knocked into IL-8	SEAP / Lucia	hkd-htlr5ni
	HEK-Blue-Lucia™ hTLR9	Human TLR9, double readout (NF-κB / IL-8), Lucia knocked into IL-8	SEAP / Lucia	hkd-htlr9ni
	HEK-Blue-Lucia™ mTLR4	Mouse TLR4-MD2-CD14, double readout (NF-κB / IL-8), Lucia knocked into IL-8	SEAP / Lucia	hkd-mtlr4ni
	HEK-Blue-Lucia™ mTLR7	Mouse TLR7, double readout (NF-κB / IL-8), Lucia knocked into IL-8	SEAP / Lucia	hkd-mtlr7ni
	HEK-Dual™ hTLR3	Human TLR3 / NF-κB & IRF	SEAP / Lucia	hkd-htlr3
	HEK-Dual™ hTLR4	Human TLR4 / NF-κB & IRF	SEAP / Lucia	hkd-htlr4
	HEK-Dual™ hTLR7	Human TLR7 / NF-κB & IRF	SEAP / Lucia	hkd-htlr7
	HEK-Dual™ hTLR8	Human TLR8 / NF-κB & IRF	SEAP / Lucia	hkd-htlr8
	HEK-Dual™ hTLR9	Human TLR9 / NF-κB & IRF	SEAP / Lucia	hkd-htlr8
(KO-)TLR / NF-κB & IRF REPORTER CELLS				
RAW (mouse)	RAW-Dual™ KO-TLR4	Knockout of TLR4 / MIP-2 (NF-κB) & IRF	SEAP / Lucia	rawd-kotlr4
THP-1 (human)	THP1-Dual™ hTLR3	Human TLR3 / NF-κB & IRF	SEAP / Lucia	thpd-htlr3
	THP1-Dual™ hTLR7	Human TLR7 / NF-κB & IRF	SEAP / Lucia	thpd-htlr7
	THP1-Dual™ hTLR7 KO-TLR8	Human TLR7, knockout of TLR8 / NF-κB & IRF	SEAP / Lucia	thpd-htlr7-ko8
	THP1-Dual™ hTLR8	Human TLR8 / NF-κB & IRF	SEAP / Lucia	thpd-htlr8
	THP1-Dual™ hTLR9	Human TLR9 / NF-κB & IRF	SEAP / Lucia	thpd-htlr9
	THP1-Dual™ KO-TLR2	Knockout of TLR2 / NF-κB & IRF	SEAP / Lucia	thpd-kotlr2
	THP1-Dual™ KO-TLR4	Knockout of TLR4 / NF-κB & IRF	SEAP / Lucia	thpd-kotlr4
	THP1-Dual™ KO-TLR8	Knockout of TLR8 / NF-κB & IRF	SEAP / Lucia	thpd-kotlr8
	THP1-Dual™ MD2-CD14-TLR4	Human TLR4, MD-2 & CD14 / NF-κB & IRF	SEAP / Lucia	thpd-mctlr4
	THP1-Dual™ MD2-CD14 KO-TLR4	Human MD-2 & CD14, knockout of TLR4 / NF-κB & IRF	SEAP / Lucia	thpd-mckotlr4
	THP1-Dual™ hTLR3 KO-MAVS Cells	MAVS-KO & TLR3-OE - NF-κB-SEAP & IRF	SEAP / Lucia	thpd-3komavs

TLR, RLR, CLR & AHR INHIBITORS

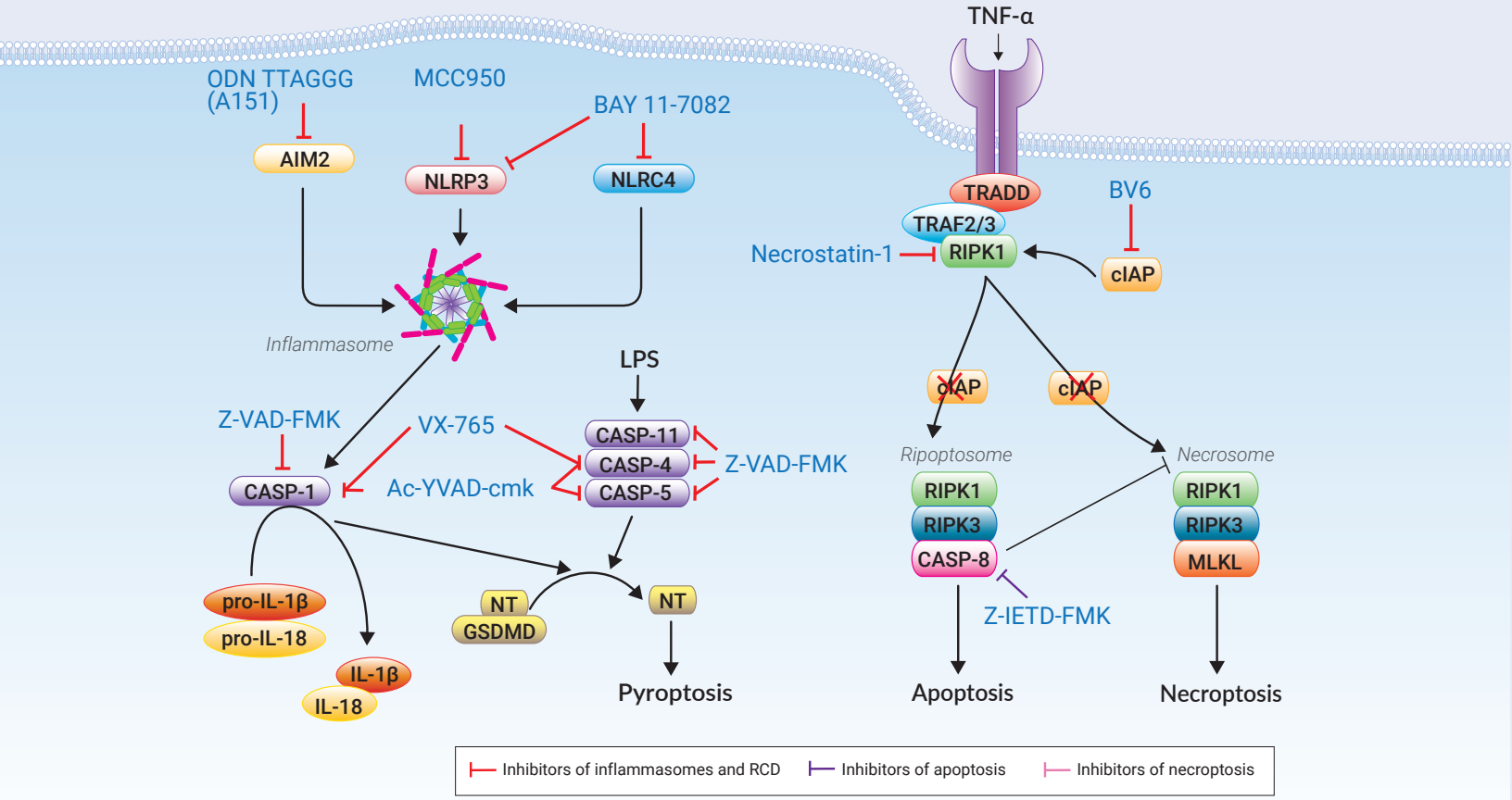


CLR, RLR & CDS SIGNALING PATHWAYS

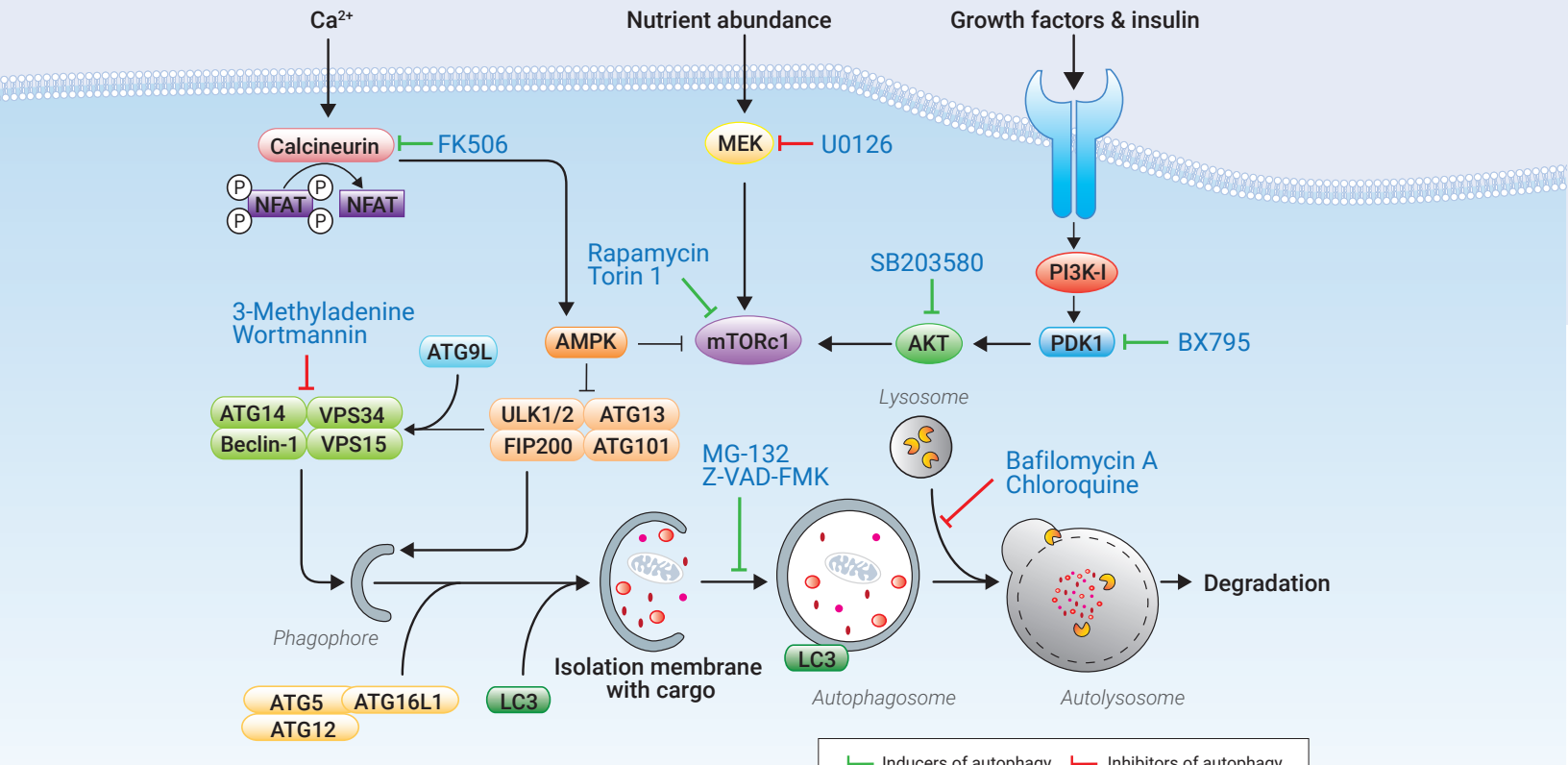



Pathogen dsDNA
Host dsDNA
RNA Pol III
dsDNA
AIM2
c-di-GMP
c-di-AMP
ASC
Pro-Casp-1
DHX36
DHX9
Ku70
LRRFIP1
cGAS
IFI16
IFIX
ZBP1
MRE11
DDX41
Caspase-1
pro-IL-1β
IL-1β
cGAMP
c-di-GMP
c-di-AMP
cGAMP
Caspase 8
FADD
Apoptosis
MyD88
STING
ZDHHC1
Endoplasmic reticulum
β-catenin
TRAF6
TBK1
IRF3
TBK1
IKKα
IKKβ
IRF7
IRF7
IRF1
IRF7
IRF3
IRF3
p65
ISRE7
ISRE1/7
ISRE3
NF-κB
IFN-α
IFN-l1
IFN-β
Pro-inflammatory cytokines

INFLAMMASOME & REGULATED CELL DEATH MODULATORS



AUTOPHAGY MODULATORS



Inflammasomes are multiprotein platforms that form upon sensing various exogenous and endogenous stimuli, and trigger the release of IL-1β and IL-18, as well as pyroptotic cell death. InvivoGen provides a series of cell lines that allow the study of the NLRP1, NLRP3, NLRC4, or Caspase-4 inflammasomes. Activation of these inflammasomes can be monitored *in situ* by using fluorescence, or in the culture supernatant by using IL-1β and IL-18 reporter cells *(see page 8)*.



LEARN MORE
Practical guide on inflammasomes
invivogen.com/inflammasome

CELL LINE	PRODUCT	GENE EXPRESSED, KO, OR KD	REPORTER	CAT. CODE
INFLAMMASOME TEST CELLS				
RAW (mouse)	RAW-ASC	Murine ASC, control cell line	None	raw-asc
	RAW-ASC KO-CASP11	Murine ASC, knockout of Caspase-11	None	raw-kocasp11
	RAW-ASC KO-GSDMD	Murine ASC, knockout of murine GSDMD	None	raw-kogsdmd
	RAW-ASC KO-NLRC4	Murine ASC, knockout of NLRC4	None	raw-konlrc4
THP-1 (human)	THP1-defCASP1	Knockdown of Caspase-1	None	thp-dcasp1
	THP1-KO-ASC	Knockout of ASC	None	thp-koasc
	THP1-KO-CASP4	Knockout of Caspase-4	None	thp-kocasp4
	THP1-KO-GSDMD	Knockout of Gasdermin D	None	thp-kogsdmdz
	THP1-KO-NLRC4	Knockout of NLRC4	None	thp-konlrc4z
	THP1-KO-NLRP3	Knockout of NLRP3	None	thp-konlp3z
	THP1-NLRC4	Human NLRC4	None	thp-nlrc4
	THP1-Null	Control cell line	None	thp-null
	THP1-Null2	Control cell line	None	thp-nullz
INFLAMMASOME REPORTER CELLS				
A549 (human)	A549-ASC	Human ASC::GFP fusion protein	GFP	a549-ascg
	A549-ASC-NLRP1	Human ASC::GFP fusion protein, human NLRP1	GFP	a549-ascg-nlrp1
THP-1 (human)	THP1-ASC-GFP	Human ASC::GFP fusion protein	GFP	thp-ascgfp
	THP1-HMGB1-Lucia™	Human HMGB1::Lucia fusion protein	Lucia	thp-gb1lc

AUTOPHAGY REPORTER CELLS

InvivoGen provides cell lines of three different origins designed to monitor the autophagic flux by assessing the LC3B protein. These cell lines express a chimeric protein consisting of LC3B fused to GFP and RFP. In autophagosomes, both fluorescent proteins signal while in autolyzosomes, GFP signal is reduced and RFP signal remains stable.

CELL LINE	PRODUCT	EXPRESSION	REPORTER	CAT. CODE
LC3 REPORTER CELLS				
RAW (mouse)	RAW-Difluo™ mLC3	Mouse LC3::GFP::RFP fusion protein	GFP - RFP	rawdf-mlc3
THP-1 (human)	THP1-Difluo™ hLC3	Human LC3::GFP::RFP fusion protein	GFP - RFP	thpdf-hlc3

CYTOKINE REPORTER CELLS

CELL LINE	PRODUCT	CYTOKINE(S) DETECTED / PATHWAY	REPORTER	CAT. CODE
INTERFERON REPORTER CELLS				
B16 (mouse)	B16-Blue™ IFN-α/β	Mouse type I IFNs / STAT1-STAT2-IRF9 (ISGF3)	SEAP	bb-ifnt1
	B16-Blue™ IFN-γ	Mouse type II IFN / STAT1	SEAP	bb-ifng
HEK293 (human)	HEK-Blue™ IFN-α/β	Human type I IFNs / STAT1-STAT2-IRF9 (ISGF3)	SEAP	hkb-ifnabv2
	HEK-Blue™ IFN-γ	Human type II IFN / STAT1	SEAP	hkb-ifng
	HEK-Blue™ IFN-λ	Human type III IFNs / STAT1-STAT2-IRF9 (ISGF3)	SEAP	hkb-ifnlv2
INTERLEUKIN REPORTER CELLS				
HEK293 (human)	HEK-Blue™ CD122/CD132	Human IL-2 and IL-15 / STAT5	SEAP	hkb-il2bg
	HEK-Blue™ IL-1β	Human IL-1β, knock-out of TNFR1 / NF-κB	SEAP	hkb-il1bv2
	HEK-Blue™ IL-1R	Human & mouse IL-1α/β / NF-κB	SEAP	hkb-il1r
	HEK-Blue™ IL-2/IL15	Human & mouse IL-2 / STAT5 and human IL-15 / STAT5	SEAP	hkb-il2
	HEK-Blue™ IL-3	Human IL-3 / STAT5	SEAP	hkb-il3
	HEK-Blue™ IL-4/IL-13	Human IL-4 and human & mouse IL-13 / STAT6	SEAP	hkb-il413
	HEK-Blue™ IL-5	Human & mouse IL-5 / STAT5	SEAP	hkb-il5
	HEK-Blue™ IL-6	Human IL-6 / STAT3	SEAP	hkb-hil6
	HEK-Blue™ IL-7	Human & mouse IL-7 / STAT5	SEAP	hkb-il7
	HEK-Blue™ IL-9	Human & mouse IL-9 / STAT5	SEAP	hkb-il9
	HEK-Blue™ IL-10	Human IL-10 / STAT3	SEAP	hkb-il10
	HEK-Blue™ IL-11	Human & mouse IL-11 / STAT3	SEAP	hkb-hil11r
	HEK-Blue™ IL-12	Human & mouse IL-12 / STAT4	SEAP	hkb-il12
	HEK-Blue-GFP™ IL-12	Human & mouse IL-12 / STAT4, GFP	SEAP / GFP	hkbg-il12
	HEK-Blue™ IL-17	Human IL-17A/F and human & mouse IL-17E / NF-κB	SEAP	hkb-il17
	HEK-Blue™ IL-25/IL-17C	Human & mouse IL-25 (IL-17E) and IL-17C and human IL-17A / NF-κB	SEAP	hkb-il17c
	HEK-Blue™ IL-18	Human & mouse IL-18 / NF-κB	SEAP	hkb-hmil18
	HEK-Blue™ IL-19/IL-20	Human & mouse IL-19, IL-20 & IL-24	SEAP	hkb-il1920
	HEK-Blue™ IL-20	Human & mouse IL-20 IL-22 & IL-24	SEAP	hkb-il20
	HEK-Blue™ IL-21	Human & mouse IL-21	SEAP	hkb-il21
	HEK-Blue™ IL-22	Human & mouse IL-22 / STAT3	SEAP	hkb-il22
	HEK-Blue™ IL-23	Human & mouse IL-23 / STAT3	SEAP	hkb-il23
	HEK-Blue™ IL-31	Human IL-31 / STAT5	SEAP	hkb-il31
	HEK-Blue™ IL-33	Human IL-33 / NF-κB	SEAP	hkb-hil33
	HEK-Blue™ IL-36	Human IL-36 / NF-κB	SEAP	hkb-hil36r
GROWTH FACTOR REPORTER CELLS				
HEK293 (human)	HEK-Blue™ CD40L	Human CD40L / NF-κB	SEAP	hkb-cd40
	HEK-Blue™ G-CSF	Human & mouse G-CSF / STAT3	SEAP	hkb-gcsf
	HEK-Blue™ GM-CSF	Human GM-CSF / STAT5	SEAP	hkb-hgmcsfr
	HEK-Blue™ TGF-β	Human TGF-β / Smad	SEAP	hkb-tgfbv2
	HEK-Blue™ TPO	Human & mouse TPO / STAT5	SEAP	hkb-tpo
	HEK-Blue™ TSLP	Human TSLP / STAT5	SEAP	hkb-tslp
	HEK-Blue™ EPO	Human & mouse EPO/ STAT5	SEAP	hkb-epo
	HEK-Blue™ EGF	Human EGF / STAT3	SEAP	hkb-egfr
TUMOR NECROSIS FACTOR FAMILY CYTOKINES REPORTER CELLS				
HEK293 (human)	HEK-Blue™ RANKL	Human & mouse RANKL / NF-κB	SEAP	hkb-rankl
	HEK-Blue™ TL1A	Human & mouse TL1A / NF-kB	SEAP	hkb-tl1a
	HEK-Blue™ TNF-α	Human & mouse TNF-α, knockdown of MyD88 / NF-κB	SEAP	hkb-tnfdmyd
	HEK-Blue-Lucia™ TNF-α	Human & mouse TNF-α, knockdown of MyD88 / NF-κB (dual reporter)	SEAP/Lucia	hkd-tnfa
	HEK-Blue™ BCMA	Human & mouse APRIL and BAFF / NF-κB/AP1	SEAP	hkb-bcma
	HEK-Blue™ TACI	Human & mouse APRIL and BAFF / NF-κB/AP1	SEAP	hkb-taci
	HEK-Blue™ BAFF-R	Human & mouse BAFF / NF-κB/AP1	SEAP	hkb-baffr

InvivoGen has developed cellular assays to investigate immune checkpoint (IC) modulation.
These assays were specifically designed to provide a biologically relevant, sensitive, and well-controlled alternative to the use of primary human T cells for antagonist or agonist screening of the: **PD-1/PD-L1 axis and ICOS/ICOS-L axis and more...**
An activating control APC Raji cell line (Raji-APC-Null) is also available.

CELL LINE	PRODUCT	DESCRIPTION	REPORTER	CAT. CODE
IMMUNE CHECKPOINTS CELL-BASED ASSAY				
PD-1/PD-L1 BioIC™ (kit)	Jurkat-Lucia™ TCR-hPD-1 + Raji-APC-hPD-L1 Cells	Effector and target cells	Lucia (Effector cells)	rajkt-hpd1
Raji-APC-Null Cells	Control APC for PD-1/PD-L1 Bio-IC™	Control target cells	None	raji-apc-null
CTLA-4/CD-80 BioIC™ (kit)	Jurkat-Lucia™ TCR-hCTLA-4 + Raji-APC-Null Cells	Effector and target cells	Lucia (Effector cells)	rajkt-ctla4
(PD-1/CTLA-4)/PD-L1 BioIC™ (kit)	Jurkat-Lucia™ TCR-hCTLA-4/hPD-1 + Raji-APC-hPD-L1 Cells	Effector and target cells	Lucia (Effector cells)	rajkt-ctla4-pdl1
PD-1/PD-L2 BioIC™ (kit)	Jurkat-Lucia™ TCR-hPD-1 + Raji-APC-hPD-L2 Cells	Effector and target cells	Lucia (Effector cells)	rajkt-pdl2
PD-1/(PD-L1/PD-L2) BioIC™ (kit)	Jurkat-Lucia™ TCR-hPD-1 + Raji-APC-hPD-L1/hPD-L2 Cells	Effector and target cells	Lucia (Effector cells)	rajkt-pdl1-pdl2
4-1BB/4-1BBL Bio-IC™ (kit)	Jurkat-Lucia h4-1BB Cells + Raji-h4-1BBL Cells	Effector and target cells	Lucia (Effector cells)	rajkt-41bb
Jurkat-Lucia™ 4-1BB	Jurkat-Lucia™ h4-1BB Cells	Effector cells	Lucia (Effector cells)	jktl-41bb
CD27/CD70 Bio-IC™ (kit)	Jurkat-Lucia CD27 Cells + Raji CD70 Cells	Effector and target cells	Lucia (Effector cells)	rajkt-cd27
Jurkat-Lucia™ CD27	Jurkat-Lucia™ hCD27 Cells	Effector cells	Lucia (Effector cells)	jktl-cd27
ICOS/ICOS-L Bio-IC™ (kit)	Jurkat-Lucia ICOS Cells + Raji ICOS-L Cells	Effector and target cells	Lucia (Effector cells)	rajkt-hicos
Jurkat-Lucia™ ICOS	Jurkat-Lucia™ hICOS Cells	Effector cells	Lucia (Effector cells)	jktl-icos

ADCC AND ADCP BIOASSAYS

InvivoGen has developed cell-based assays designed for the analysis of ADCC or ADCP activity of a given antibody. These bioassays comprise a series of Jurkat reporter T cells, co-expressing CD16 or CD32 and an NFAT-inducible Lucia reporter gene, and a collection of Raji B cells, expressing an immune checkpoint or tumoral antigen.

CELL LINE	PRODUCT	GENE(S) EXPRESSED / (PATHWAY)	REPORTER	CAT. CODE
ADCC AND ADCP EFFECTOR CELLS				
Jurkat (human)	Jurkat-Lucia™ NFAT-CD16	Human CD16A (FcγRIIIA, V158 allotype) / NFAT	Lucia	jktl-nfat-cd16
	Jurkat-Lucia™ NFAT-CD16 low	Human CD16A (FcγRIIIA, F158 allotype) / NFAT	Lucia	jktl-nfat-cd16lo
	Jurkat-Lucia™ NFAT-CD32	Human CD32A (FcgRIIA; H131 allotype) / NFAT	Lucia	jktl-nfat-cd32
	Jurkat-Lucia™ NFAT-CD64	Human CD64 (FcγRI) / NFAT	Lucia	jktl-nfat-cd64
ADCC AND ADCP TARGET CELLS				
Raji (human)	Raji-Null	Control Target Cells	None	raji-null
	Raji-h4-1BB	Human 4-1BB	None	raji-h41bb
	Raji-hCTLA4	Human CTLA4	None	raji-hctla4
	Raji-hEGFR	Human EGFR	None	raji-hegfr
	Raji-HER2	HER2	None	raji-her2
	Raji-hICOS	Human ICOS	None	raji-hicos
	Raji-hLAG3	Human LAG3	None	raji-hlag3
	Raji-hOX40	Human OX40	None	raji-hox40
	Raji-hPD-1	Human PD-1	None	raji-hpd1
	Raji-hPD-L1	Human PD-L1	None	raji-hpdl1
	Raji-hTIGIT	Human TIGIT	None	raji-htigit
	Raji-hVISTA	Human VISTA	None	raji-hvista

OXYDATIVE STRESS REPORTER CELLS

The HEK-Lucia-Star™ ARE cell line features the inducible Lucia® luciferase gene under the control of a minimal promoter fused to multimeric antioxidant response elements (ARE). Upon oxidative stress induction, Lucia® luciferase levels can be monitored in the supernatant. Moreover, these cells constitutively express a secreted version of the tartrate-resistant acid phosphatase 5 (TRAP, ACP5). Measuring the ACP5 level in the supernatant while performing compound screening allows you to assess cell viability simultaneously.

CELL LINE	PRODUCT	PATHWAY	REPORTER	CAT. CODE
HEK293 (human)	HEK-Lucia-Star™ ARE Cells	NRF-2 / ARE & cell viability	Lucia / ACP5	hkls-are

FERROPTOSIS CELLULAR REPORTER ASSAY

CELL LINE	PRODUCT	PATHWAY	REPORTER	CAT. CODE
HT1080 (human)	HT1080-HMGB1-Lucia™ Cells	Human HMGB1::Lucia fusion protein	Lucia	ht80-gb1lc

COVID-19-RELATED CELL LINES

COVID-19-related cell lines, which derive from the HEK293 or A549 cell lines, are specifically designed for the study of SARS-CoV-2 infection. They can also be used for the development of novel therapeutics targeting either the virus or the subsequent inflammatory response.

CELL LINE	PRODUCT	CYTOKINE(S) DETECTED / PATHWAY	REPORTER	CAT. CODE
SPIKE EXPRESSING CELL LINES				
HEK293 (human)	293-SARS2-S	SARS-CoV-2 spike (D614)	None	293-cov2-s
	293-SARS2-S-dfur	SARS-CoV-2 spike (D614), inactive furin (dfur) cleavage site	None	293-cov2-sdf
SARS-CoV2 PERMISSIVE CELL LINES				
HEK293 (human)	HEK-Blue™ hACE2	Human ACE2 / NF-κB	SEAP	hkb-hace2
	HEK-Blue™ hACE2-TMPRSS2	Human ACE2 & TMPRSS2 / NF-κB	SEAP	hkb-hace2tpsa
A549 (human)	A549-hACE2	Human ACE2	None	a549-hace2
	A549-hACE2-TMPRSS2	Human ACE2 & TMPRSS2	None	a549-hace2tpsa
	A549-ASCoV2	Human ACE2, TMPRSS2 & ASC::GFP fusion protein	GFP	a549-ascov2
	A549-ASCoV2-NLRP1	Human ACE2, TMPRSS2, NLRP1 & ASC::GFP fusion protein	GFP	a549-ascov2-nlrp1
	A549-Dual™ hACE2-TMPRSS2	Human ACE2 & TMPRSS2 / NF-κB & IRF	SEAP/Lucia	a549d-cov2r
	A549-Dual™ KO-MDA5 hACE2-TMPRSS2	Human ACE2 & TMPRSS2, knockout of MDA5 / NF-κB & IRF	SEAP/Lucia	a549d-komda5-cov2r
	A549-Dual™ KO-RIG-I hACE2-TMPRSS2	Human ACE2 & TMPRSS2, knockout of RIG-I / NF-κB & IRF	SEAP/Lucia	a549-ascov2
DONOR CELLS FOR FUSION ASSAYS				
HEK293 (human)	293-hMyD88	Human MyD88	None	293-hmyd

WE ALSO OFFER

PRR LIGAND SCREENING



Level 1 - Compound Profiling:
Single dose testing on a set of PRRs
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LDH-BLUE™ CYTOTOXICITY ASSAY



Key features
- Precise and sensitive
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- No interference with phenol red

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SEAP DETECTION

InvivoGen provides two products for the detection of SEAP (secreted embryonic alkaline phosphatase) activity in cell culture supernatants. Both products allow colometric detection of SEAP activity through a color change from pink to purple-blue. Quantitative monitoring can be performed by reading the optical density (OD) at 620-655mm using a spectrophotometer.

HEK-Blue™ Detection

HEK-Blue™ Detection is a cell culture medium for HEK293-derived SEAP reporter cells. It is provided as a powder which contains all the nutrients necessary for cell growth and a specific SEAP substrate. HEK-Blue™ Detection allows fast and convenient real-time detection of SEAP expression by the naked eye.



QUANTI-Blue™

QUANTI-Blue™ is a SEAP detection reagent that offers highly sensitive and rapid detection of SEAP in cell culture supernatants.
This liquid formulation is concentrated (100X) and is therefore adaptable to your needs. It has been optimized for use in 96-well plates (standard procedure) and in 1536-well plates (high-throughput screening procedure, HTS).

PRODUCT	QUANTITY	CAT. CODE
HEK-Blue™ Detection	5 pouches 10 pouches	hb-det2 hb-det3
QUANTI-Blue™	5 ml 10 ml 20 ml	rep-qbs rep-qbs2 rep-qbs3

LUCIA, GAUSSIA, AND RENILLA DETECTION

InvivoGen provides two products for the bioluminescent detection of the secreted Lucia and Gaussia luciferases or the intracellular Renilla luciferase. These products are comprised of a concentrated coelenterazine substrate and an optional stabilizer (for Lucia/Gaussia), plus an additional lysis buffer (for Renilla). Quantitative monitoring of luciferase activity is performed using a luminometer.

QUANTI-Luc™ 4 Lucia/Gaussia

QUANTI-Luc™ 4 Lucia/Gaussia is a ready-to-use bioluminescent assay reagent for the detection of Lucia and Gaussia activity, two coelenterazine-utilizing secreted luciferases.
This liquid formulation contains two components, QUANTI-Luc™ 4 Reagent (coelenterazine substrate) and QUANTI-Luc™ 4 Stabilizer (optimized Glow assay reagent). It provides a bright signal for both Flash and Glow detection luciferase detection.



QUANTI-Luc™ 4 Renilla

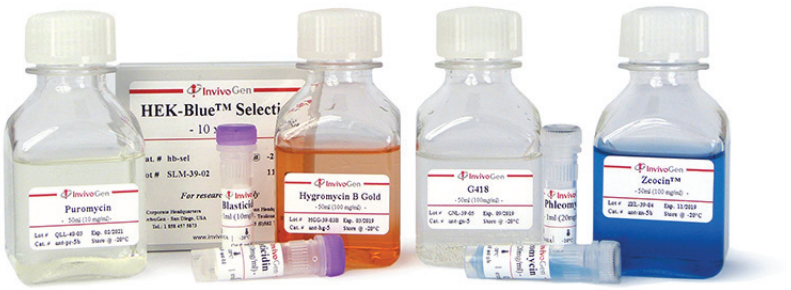
QUANTI-Luc™ 4 Renilla is a ready-to-use bioluminescent assay reagent for the detection of Renilla activity, a coelenterazine-utilizing intracellular luciferase.
This liquid formulation contains two components, QUANTI-Luc™ 4 Reagent (coelenterazine substrate) and QUANTI-Luc™ 4 Lysis Buffer.

PRODUCT	QUANTITY	CAT. CODE
QUANTI-Luc™ 4 Lucia/Gaussia	500 tests 2 x 500 tests 5 x 500 tests 10 000 tests	rep-qlc4lg1 rep-qlc4lg2 rep-qlc4lg5 rep-qlc4lg20
QUANTI-Luc™ 4 Renilla	500 tests 2 x 500 tests 5 x 500 tests	rep-qlc4r1 rep-qlc4r2 rep-qlc4r5

Bulk quantity available for HTS. For research purposes only. Not intended for use on animals or humans.

SELECTIVE ANTIBIOTICS

InvivoGen provides high-quality and affordable selective antibiotics to ensure artifact-free selection of transfected mammalian cells. All InvivoGen selective antibiotics are manufactured in its state-of-the-art facility from its own proprietary strains. These antibiotics are ready-to-use, sterile, and endotoxin-free to avoid the deleterious effects of bacterial endotoxins on transfected cells. They are functionally validated through rigorous physico-chemical, microbiological and cellular testing. They exhibit proven long-term stability to mammalian cells with no cytotoxicity.



For research purposes only. Not intended for use on animals or humans.

SELECTIVE ANTIBIOTIC	CAT. CODE
Blasticidin	ant-bl-1
G418 Sulfate (Geneticin)	ant-gn-1
HEK-Blue™ Selection	hb-sel
Hygromycin B Gold	ant-hg-1
Phleomycin	ant-ph-1
Puromycin	ant-pr-1
Zeocin®	ant-zn-05

Bulk quantities available

BE VIGILANT TO KEEP YOUR CELLS SAFE

Microbial contamination of cell cultures is a serious and relentless threat to your research. Invasive mycoplasma, bacteria, and fungi can kill or drastically alter cells in culture, leading to disastrous results, lost time, and wasted resources. InvivoGen offers a wide range of highly specific and fast-acting reagents to help you prevent, detect and eliminate microbial contaminations, with minimal toxicity to eukaryotic transformed and primary cells. All products are validated through strict quality control.

PRODUCT	DESCRIPTION	CAT. CODE
MYCOPLASMA DETECTION		
Plasmotest™	Colorimetric cellular assay - recommended for routine tests	rep-pt1
MycoStrip™	Genomic detection strips - recommended for immediate results	rep-mys-10
MICROBIAL ELIMINATION		
Fungin™	Treatment for yeast, hyphae, and mold removal	ant-fn-1
Normocure™	Treatment for multidrug-resistant bacteria removal	ant-noc
Plasmocin® treatment	Treatment for broad-spectrum mycoplasma removal	ant-mpt
Plasmocure™	Treatment for Plasmocin™-resistant mycoplasma removal	ant-pc
MICROBIAL PREVENTION		
Fungin™	Yeast, hyphae, and mold contamination preventive reagent	ant-fn-1
Normocin™	Broad-spectrum contamination preventive reagent	ant-nr-1
Plasmocin® prophylactic	Reagent for preventing mycoplasma contamination	ant-mpp
Primocin®	Broad-spectrum contamination preventive reagent designed for primary cells	ant-pm-1



LEARN MORE

Practical guide on
cell culture contamination
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