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CUSTOM SERVICES

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TLR/NOD Ligand Screening

InvivoGen has developed a high-throughput method to determine whether a compound is recognized by Toll-Like Receptors (TLRs) or NOD1/NOD2 and acts either as an agonist or antagonist. This method is based on TLR- or NOD-induced activation of various transcription factors including NF- κ B and API in HEK293 clones.

Description

TLR Ligand Screening

Two choices of services are offered, level 1 and level 2, that can be performed sequentially or individually.

Level 1: Single dose testing on a panel of human TLRs

Testing is carried out on seven TLRs: TLR2, TLR3, TLR4, TLR5, TLR7, TLR8 and TLR9.

Screening is performed at a single concentration, typically a 1/10 dilution of the original compound solution provided, or customer specified. Duplicate tests (plus controls, see list).

Level 2: Dose response on one or two TLRs

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

NOD Ligand Screening

Two cytoplasmic proteins involved in pathogen recognition, NOD1 and NOD2, can be added to this screening service. Their activation by a given compound is detected using the same method as the one described above.

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



PRODUCT	CAT. CODE
TLR / NOD Ligand Screening	tlrl-test

For more information, see page 109

Custom-Made CpG-Free Genes

InvivoGen is an expert in developing CpG-Free genes and now offers a CpG-Free gene custom service. Send us the sequence of your gene of interest, and our specialists will design, synthesize and clone into an expression vector a CpG-Free allele of this gene. We guarantee that the sequence of the synthetic gene will 100% match the designed sequence.

Description

Our experts will design the sequence of a CpG-free allele of your gene of interest using a proprietary software that allows the elimination of all CpG dinucleotides, the humanization of the sequence, the elimination of secondary structures, and the elimination/reduction of *dam* and *dcm* methylations to diminish *E. coli* signature

The Custom-made CpG-free Gene is 100% sequence verified and provided into the pMA plasmid (see map page 149).

Contents and Storage

Custom-made CpG-free genes are provided as 5 μ g of lyophilized DNA. Products are shipped at room temperature. Store at -20°C.

PRODUCT	QTY	CAT. CODE
Custom-made CpG-free Gene	20 μ g	p-custom

For more information, see page 149

Custom Cloning : Many Combinations Possible According to Your Aims

At the leading edge of research and development in vector construction, gene delivery, and gene expression systems, our specialists are pleased to provide an extensive range of customized products. With more than 20 years of experience in cloning, we offer custom cloning services at very competitive rates and short turn-around time.

- ▶ Wide Expertise and Consultation Available
- ▶ Customized Scientific Support
- ▶ Rapid Processing
- ▶ Your Product Ready-to-Use
- ▶ Cost-Effective

Services

Custom-Made pSELECT

pORF and pMOD plasmids are not selectable in mammalian cells. If you are planning on stably expressing an open reading frame provided in a pORF or pMOD, our experts can subclone this open reading frame into a pSELECT plasmid carrying the selectable marker of your choice:

- pSELECT-blasti
- pSELECT-hygro
- pSELECT-neo
- pSELECT-puro
- pSELECT-zeo
- pSELECT-gfpzeo

Custom-Made pDRIVE (see page 47)

You can create your own composite promoter by combining the enhancer, core promoter and 5'UTR of your choice. We will assemble this composite promoter in a pDRIVE plasmid harboring a reporter gene from the list below:

- pDRIVE-LacZ
- pDRIVE5-GFP
- pDRIVE5-SEAP

Custom-made pDRIVE carry the Zeocin™ resistance gene for selection and amplification in *E. coli*. We can replace the bacterial selection cassette with a mammalian selection cassette of your choice derived from a pSELECT plasmid.

Custom-Made psiRNA (see page 51)

You can either send us your siRNA/shRNA sequence or we can select the best candidate siRNA sequence for your target gene using the siRNA Wizard software. The insert encoding the expected shRNA sequence will be cloned in the psiRNA-h7SK plasmid which is available with different selectable markers:

- psiRNA-h7SKblasti
- psiRNA-h7SKhygro
- psiRNA-h7SKneo
- psiRNA-h7SKzeo
- psiRNA-h7SKGFPzeo

Contents and Storage

Custom-made plasmids (pSELECT, pDRIVE or psiRNA) are provided as 20 µg of lyophilized DNA.

Custom-made psiRNA plasmids are also available as a kit that contains 20 µg of custom-made psiRNA, 20 µg of a control psiRNA, 1 vial of LyoComp GT116 (*E. coli* competent cells), and 4 pouches of the corresponding Fast-Media® (*E. coli* selection medium).

Products are shipped at room temperature. Store at -20°C.



Save time and speed up your research by using our expertise and knowledge. Do not hesitate to inquire about our custom service department.

PRODUCT	QTY	CAT. CODE
Custom-made pSELECT	20 µg	p-custom
Custom-made pDRIVE	20 µg	p-custom
Custom-made psiRNA	20 µg	p-custom
Custom-made psiRNA Kit	1 kit	k-custom

Contact us for more information.
info@invivogen.com

Large Scale Plasmid DNA Production

If you are conducting gene therapy research, DNA vaccination research, transfection or pre-clinical trials, we can provide you with large quantities of plasmid DNA. We offer a comprehensive custom service. In order to supply the most suitable and ready-to-use product, we manufacture plasmid DNA at standard research and pre-clinical grades.

- ▶ Technological Expertise
- ▶ Personalized Technical Support
- ▶ High Quality Plasmid DNA
- ▶ Cost-Effective
- ▶ Short Turn-Around Time

Two purification grades of plasmid DNA

If you are conducting gene therapy research, DNA vaccination research, transfection or pre-clinical trials, we can provide you with large quantities of plasmid DNA. We offer a comprehensive custom-made service. In order to supply the most suitable and ready-to-use product, we manufacture plasmid DNA at standard research and pre-clinical grades.

- Standard Research Grade

The level of endotoxin is reduced to less than 0.1 EU/ μ g plasmid DNA (FDA specifications).

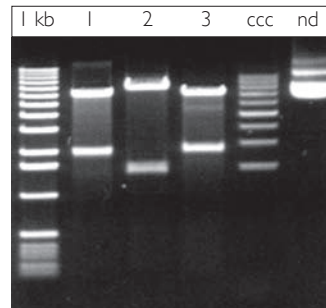
- Pre-Clinical Grade

The purification is guaranteed with a protein level less than 1% and with an absence of microorganisms (verified by Bioburden Assay).

High Standard Quality Control

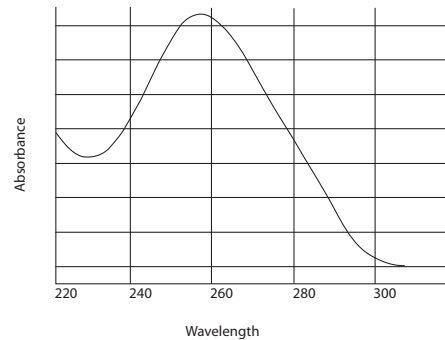
Our processing and our rigorous quality procedures allow us to provide certified plasmid DNA. Each batch of plasmid DNA is delivered with a certificate of analysis and meets the characteristics listed below.

Analysis on agarose gel 0.8%



1 kb : linear DNA ladder
1 : Pac I (6306-2109)
2 : Xba I/Ase I (1497-6921)
3 : Bst XI (2148-6270)
ccc : circular DNA ladder
nd : not digested

Absorbance Curve (220 nm - 320 nm)



CRITERIA TESTED	VALUE	ASSAY METHOD
Appearance in water solution	Clear, colorless	Visual inspection
Plasmid identity	Restriction pattern	Agarose gel electrophoresis
DNA homogeneity	>95% supercoiled form	Agarose gel electrophoresis
Purity	1.7-2.0 A260/A280	Optical density measurements
Presence of <i>E. coli</i> DNA	<5%	Agarose gel electrophoresis
Presence of RNA and ss DNA	Undetectable	Agarose gel electrophoresis
Presence of endotoxin	< 0.1 EU / μ g plasmid DNA	BioWhittaker LAL test
Presence of protein*	<1%	Micro BCA assay
Sterility*	Absence of microorganisms	Bioburden assay

*pre-clinical grade only

PRODUCT	QTY	CAT. CODE
DNA Standard Research Grade	Up to 1 g	p-custom
DNA Pre-Clinical Grade	Up to 1 g	p-custom

Contact us for more information.
info@invivogen.com