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pJNC-hINS-GLuc	
Cat. No.	P-101
Gene/Insert name:	Human preproinsulin (hINS)−*Gaussia* luciferase (GLuc)
Vector backbone:	pCMV-JNC
Vector type:	Mammalian cells
Backbone size w/o insert (bp):	5,394
Bacterial resistance:	Ampicillin and neomycin
Growth strain:	DH5α
Growth temperature (°C):	37
Growth instructions:	pJNC-hINS-GLuc is resistant to ampicillin and neomycin
High or low copy:	High copy
Vector map:	pJNC-hINS-GLuc
Coding sequence:	Nucleotide sequence & Amino acid sequence
Plasmid sequence:	pJNC-hINS-GLuc (6,244 bp)
Restriction enzyme list:	Restriction enzyme sites of pJNC-hINS-GLuc
GenBank Accession No.:	−
Size:	10 μg
Constituents:	10 mM Tris-HCl (pH 7.6)－1 mM EDTA
Terms and Licenses:	MTA
Laboratory Reagent For Research Use Only	

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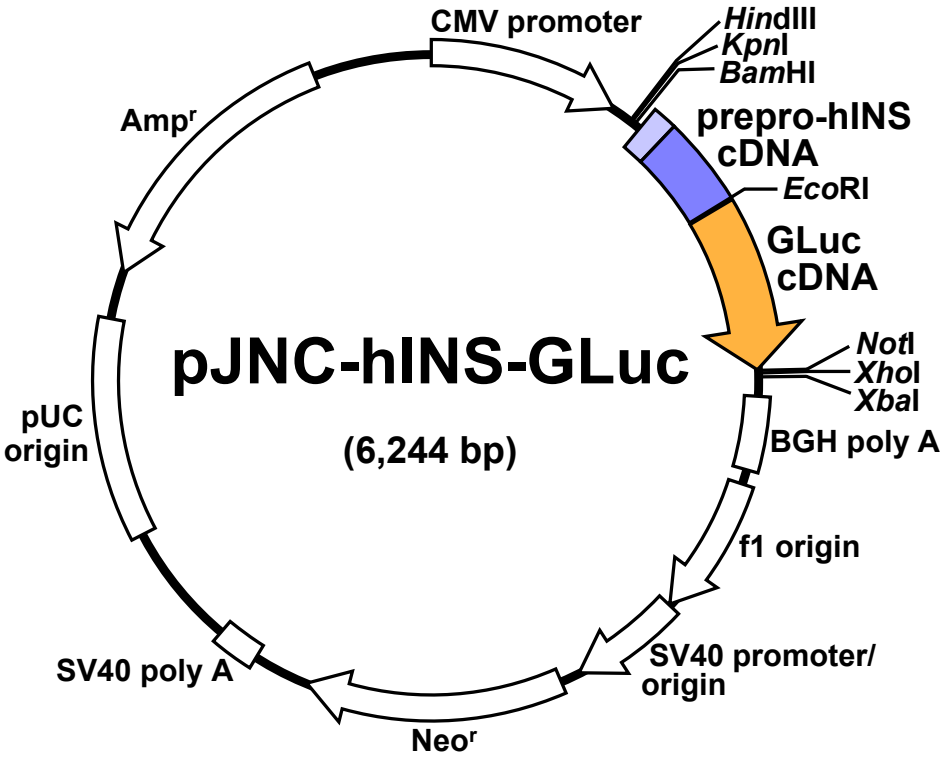
Mammalian expression vector:
Human Preproinsulin–*Gaussia* Luciferase

Cat. No. P-101

Name: pJNC-hINS-GLuc
Insert: Human preproinsulin (hINS)–*Gaussia* luciferase (GLuc) cDNAs
Vector: pCMV-JNC



- **Feature for pJNC-hINS-GLuc:**

Residue	Sourse	Comments
1-681	1-681	pCMV-JNC backbone
1-588	1-588	CMV promoter
632-651	632-651	T7 promoter
689-760	1-72	Human insulin signal peptide (M1-A24)
761-1,018	73-330	Human proinsulin (F25-N110)
1,025-1,528	337-840	GLuc (K18-D185)
1,532-6,244	733-5,445	pCMV-JNC backbone
1,567-1,584	768-785	Sp6 promoter
1,610-1,834	811-1,035	BGH polyadenylation sequence
1,880-2,308	1,081-1,509	f1 origin
2,313-2,656	1,514-1,857	SV40 early promoter and origin
2,718-3,512	1,919-2,713	Neomycin resistance gene (ORF)
3,686-3,816	2,887-3,017	SV40 early polyadenylation signal
4,199-4,872	3,400-4,073	pUC origin
5,017-5,877	4,218-5,078	Ampicillin resistance gene (ORF)

Ref.

1) Suzuki, T. *et al. Anal. Biochem.* (2011) 415: 182-189.

2) Suzuki, T. *et al. Biochem. Biophys. Res. Commun.* (2017) 486: 886-892.

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Gene coding region
(ORF: Human preproinsulin/hINS−*Gaussia* luciferase/GLuc)

Nucleotide sequence

GGATCCAGCCACC**ATG**GCCCTGTGGATGCGCCTCCTGCCCCTGCTGGCGCTGCTGGCCCTCTGGGGACCT
GACCCAGCCGCAGCC**TTTGTGAACCAACACCTGTGCGGCTCACACCTGGTGGAAGCTCTCTACCTAGTGT**
GCGGGGAACGAGGCTTCTTCTACACACCCAAGACCCGCCGGGAGGCAGAGGACCTGCAGGTGGGGCAGGT
GGAGCTGGGCGGGGGCCCTGGTGCAGGCAGCCTGCAGCCCTTGGCCCTGGAGGGGTCCCTGCAGAAGCGT
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AGAAGTGGCTGCCGCAACGCTGTGCGACCTTTGCCAGCAAGATCCAGGGCCAGGTGGACAAGATCAAGGG
GGCCGGTGGTGAC**TAA**GCGGCCGC

Amino acid sequence

MALWMRLLPLLALLALWGPDPAAA**FVNQHLCGSHLVEALYLVCGERGFFYTPKT**RREAEDLQVGQVELGG
GPGAGSLQPLALEGSLQKR**GIVEQCCTSICSLYQLENYCN**EFKPTENNEDFNIVAVASNFATTDLDADRG
KLPGKKLPLEVLKEMEANARKAGCTRGCLICLSHIKCTPKMKKFIPGRCHTYEGDKESAQGGIGEAIVDI
PEIPGFKDLEPMEQFIAQVDLCVDCTTGCLKGLANVQCSDLLKKWLPQRCATFASKIQGQVDKIKGAGGD
*

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pJNC-hINS-GLuc (6,244 bp)

GTTGACATTGATTATTGACTAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATAT
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TTAATACGACTCACTATAGGGAGACCCAAGCTTGGTACCGAGCTCGGATCCAGCCACC**ATG**GCCCTGTGG
ATGCGCCTCCTGCCCCTGCTGGCGCTGCTGGCCCTCTGGGGACCTGACCCAGCCGCAGCC**TTTGTGAACC**
AACACCTGTGCGGCTCACACCTGGTGGAAGCTCTCTACCTAGTGTGCGGGGAACGAGGCTTCTTCTACAC
ACCCAAGACCCGCCGGGAGGCAGAGGACCTGCAGGTGGGGCAGGTGGAGCTGGGCGGGGGCCCTGGTGCA
GGCAGCCTGCAGCCCTTGGCCCTGGAGGGGTCCCTGCAGAAGCGT**GGCATTGTGGAACAATGCTGTACCA**
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CAACATCGTGGCCGTGGCCAGCAACTTCGCGACCACGGATCTCGATGCTGACCGCGGGAAGTTGCCCGGC
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GGCCAGATATACGC

Residue	Sourse	Comments
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632-651	632-651	T7 promoter
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761-1,018	73-330	Human proinsulin (F25-N110) **(B-chain:F25-T54, A-chain:G90-N110)**
1,025-1,528	337-840	GLuc (K18-D185)
1,532-6,244	733-5,445	pCMV-JNC backbone
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1,610-1,834	811-1,035	BGH polyadenylation sequence
1,880-2,308	1,081-1,509	f1 origin
2,313-2,656	1,514-1,857	SV40 early promoter and origin
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3,686-3,816	2,887-3,017	SV40 early polyadenylation signal
4,199-4,872	3,400-4,073	pUC origin
5,017-5,877	4,218-5,078	Ampicillin resistance gene (ORF)

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Cat. No. P-101

Restriction enzyme sites of pJNC-hINS-GLuc

Enzyme Name	Sequence	Count	Cutting Positions
AccI	GT!MKAC	4	1312, 3818, 3825, 6013
ApaI	GGGCC!C	2	903, 1562
Asp718I	G!GTACC	1	665
BamHI	G!GATCC	1	677
BclI	T!GATCA	2	1598, 2688
BglII	A!GATCT	1	6026
EcoRI	G!AATTC	1	1020
EcoRV	GAT!ATC	0	-
HincII	GTY!RAC	4	4, 1313, 3826, 6014
HindIII	A!AGCTT	1	659
KpnI	GGTAC!C	1	669
MluI	A!CGCGT	0	-
NcoI	C!CATGG	5	380, 688, 1351, 2544,3279
NdeI	CA!TATG	1	254
NheI	G!CTAGC	0	-
NotI	GC!GGCCGC	1	1534
PstI	CTGCA!G	4	874, 922, 949, 2900
SacI	GAGCT!C	3	588, 675, 1594
SalI	G!TCGAC	3	1311, 3824, 6012
ScaI	AGT!ACT	1	5571
SmaI	CCC!GGG	1	2660
StuI	AGG!CCT	1	2636
XbaI	T!CTAGA	1	1552
XhoI	C!TCGAG	1	1540

Supplier	Contact us
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