



Post Office Box 2746 Pinetop, Arizona 85935
Telephone (928) 367-1200 Fax (928) 367-1205
www.nanolight.com

pUC19-R-Luc

Renilla muelleri Luciferase- coding sequence in green, start codon in bold
C-terminal His-tag in red
Key restriction enzyme site are underlined
pUC19 sequences in blue

ATGACCATGATTACGCCAAGCTTGCATGCCTGCAGGTCGACTCTAGATTAGTGATGGTGATGGTGATGTTGTTCAATTTTT
AAGAACACGCTCAACAAACGATTTTTATATAATTTCCCATTTTCATCAGGTGCATCTTCTTGTGAAAAATGAAGACCTTTGA
CTTTAACAATTCAGTATTAGGGAATTTCTTAGCACCTTCAACAATAGCATTGGAAAAGAATCCTGGATCAGATTCAATA
AACATTTTTGGTAAATCATGACTTGCACGAAGATAAGCATTATAATTTCTGACAATTTCTACTACATCCGGTTTACCACC
TTTTACCAAAGGGATTTACGAGGCCATGATAATGTTGGACGACGAACCTTACCTTTCTCTTTAAATGGTTCAAGATAAG
CAGCAAATTCCTCTGGTTCCAACCTTTCTCATGATTTTTGATGGCAACATGGTTTCCACGAAGAAGTTATTCTCTAAAACC
ATTTTTCTCCTTCTTTCAGATTTAATCAAAGCAATATCTTCTTCAATATCAGGCCATTTCGTCCCACGATTCAATCACATC
TACTACACTTTTCAGCATGAACAACCTGCTTTGATGCGATCCTGATGTTTCATAGCAATAATGAAATGCTAAAACAAGCACCCC
AATCATGACCGACAAAATGATCTTCTTTGGTAAATTAAGATGTTTGAACCATTTCAGTAAGATATTTGTAATGATCTAGT
AATCTATAGGAACCATTACCAGACTTGCCTGATTTACCCATACCTATAAGATCTGGTATAATACATCGCGCCACTGGTTC
AACATGTGGTACAACATGACGCCATAAATAAGAAGATGCTGCATTACCATGTAAAAATATAACTGCATTTTTCTGCATGTT
TTTCTGAATCATAATAATTAATAAATGAATCAAGAACATTCATTTGTTTACATCTTGCCACCATTGTGGACCAGTAATC
ATGCGTTTTCTTAATTCAGGATCGTAAACTTTTTGACGTGATTTTGAATTCACTGGCCGTCGTTTTACAACGTCGTGACTG
GAAAA

Coding Sequence: Five N-terminal codons missing due to limited sequence data.

1001 atgacgtcaaaagtttacgatcctgaattaagaaaaacgc atgatt
M T S K V Y D P E L R K R M I
956 actgggtccacaatgggtgggcaagatgtaaacaa atgaatgttctt
T G P Q W W A R C K Q M N V L
911 gattcatttattaattattatgattcagaaaaacatgcagaaaat
D S F I N Y Y D S E K H A E N
866 gcagttatatttttacatggtaatgcagcatcttcttatttatgg
A V I F L H G N A A S S Y L W
821 cgtcatggtgtaccacatggtgaaccagtggcgcgatgtattata
R H V V P H V E P V A R C I I
776 ccagatcttataggt atgggtaaatcaggcaagtctggtaatggt
P D L I G M G K S G K S G N G
731 tcctatagattactagatcattacaaatatcttactgaatggttc
S Y R L L D H Y K Y L T E W F
686 aaacatcttaatttaccaaagaagatcatttttgtcggatcatgat
K H L N L P K K I I F V G H D
641 tgggggtgcttgttttagcatttcattattgctatgaacatcaggat
W G A C L A F H Y C Y E H Q D
596 cgcacaaagcagttgttcatgctgaaagtgtagtagatgtgatt
R I K A V V H A E S V V D V I

551 gaatcgtgggacgaatggcctgatattgaagaagatattgctttg
E S W D E W P D I E E D I A L
506 attaaatctgaagaaggagaaaaaatgggttttagagaataacttc
I K S E E G E K M V L E N N F
461 ttcgtggaaaccatggttgccatcaaaaatcatgagaaagttggaa
F V E T M L P S K I M R K L E
416 ccagaggaatttgctgcttattcctgaaccatttaaagagaaaggt
P E E F A A Y L E P F K E K G
371 gaagttcgtcgtccaacattatcatggcctcgtgaaatccctttg
E V R R P T L S W P R E I P L
326 gtaaaaggtggtaaaccggatgtagtagaaattgtcaggaattat
V K G G K P D V V E I V R N Y
281 aatgcttattcttcgtgcaagtcattgatttaccaaaaatggtttatt
N A Y L R A S H D L P K M F I
236 gaatctgatccaggattcttttccaatgctattggtgaaggtgct
E S D P G F F S N A I V E G A
191 aagaaattccctaataactgaatttgtaaagtcaaaggtcttcat
K K F P N T E F V K V K G L H
146 ttttcacaagaagatgcacctgatgaaatgggaaattatataaaa
F S Q E D A P D E M G N Y I K
101 tcgtttggttgagcgtgttcttaaaaatgaacaacatcaccatcac
S F V E R V L K N E Q H H H H
56 catcactaa 48
H H *

MTSKVYDPELRKRMITGPQWWARCKQMNVLDSFINYYDSEKHAENAVIFLHGNAASSYLWRHVPH
VEPVARCIIPDLIGMGKSGKSGNGSYRLLDHYKYLTEWFKHLNLPKKIIFVGHWDGACLAFLHYCYE
HQDRIKAVVHAESVVDVIESWDEWPDIEEDIALIKSEEKGMVLENNFFVETMLPSKIMRKLEPEE
FAAYLEPFKEKGEVRRPTLSWPREIPLVKGKPDVVEIVRNYNAYLRASHDLPKMFIESDPGFFSN
AIVEGAKKFPNTEFVKVGLHFSQEDAPDEMGNYIKSFVERVLKNEQH H H H H H *