

A)

>5'-UTR_HP (120-501nt)

```
GGACUUCGCCACGCUUACACCAUCGAGAACACAUAAAGUGGUGUAAUAUUUAUGUGUUUUGGCUGCGUGUGUCACGAGCACGAUCCAUGGGGGAAUCUAACCC
....[[[[[[[.(((((((((((.((((((((([]]]]].))..)))))))))((((((({{{{{{{{{{{...((([[[[[[[[.]))
AGGUGGUGUUGUGUAUGAUAAAGGUACAAGCCCGUCAACACCACAGGUGGAGAGGGACAGGAGUCCCAUUUCCCCUCUAGAAAACAGCAGUGGUCCGCCCC
).((((((((([[[.}}}})..((([]]..))..)))))))))((([]]..]](((((.....)))..]]]]])).....[[[[[[[.]]..[[[[[
UCAUGCCCUAUGAAACGUUAGGGGGCCGACACUAGUGGGCAAGCCCGAUGGUGUGGGGGACUGGAUAUGGGAACACCAGUCCGUUAAACCCGUACGGCUU
[[[(((((..]].....]]]]]]..]]]]].]]))))).....))(((.....))).....(((((.....(((((
CGCCAGCCUACACCGGGGGGGGCUUAAUCCCCUUAUUCUUGGCACCUGAAAAUAUUACUUUUGACACUUUGAACACACAGAA
.[[[])).....)))((((.....))).....]]].....
```

B)

>5'-UTR_CAT (120-500nt)

```
AGACUUCGCCACGCUUACACCAUCGAGAACACAUAGGUGGUGUAAUAUUUAUGUGUUUUGGCUGCGUGUGUCACGAGCACGAUCUAUGGGGGAAUCUAACCC
.....[[{{{{[[[[[[[[[.((((((((([]]]]]]]]]]..))))).....).{{{[[[[[(((..((([]]].)....(({{{{{{{{{{.[[.)
AGGUGGUGUUGUGUAUGAUGAGGUACAAGCCCGUCAACACCACAGGUGGAGAGGGACAGGAGUCCCAUUUCCCCCUUUAACAGCAGUGGUCCGCCCC
).((((((((((((..[[[.[]))..]]]]]])))))((([]]]]}}(((((.....)))..}}}}})).....}}}[[[[.[]..[[[[[
UCAUGCCCUAUGAAACGUUAGGGGGCCGACACUAGUGGGCAAGCCCGAUGGUGUGGGGGACUGGAUAUGGGAACCCCAGUCCGUUAAACCCGUACGGCUU
[.[[(((.....]]..]]]]]]..]]]]].)}})))([[[[[{{[[[[[[[[[((((((..[[[[[[[[[.)))))]]]..]]]]]][[[[]))
CGCCAGCCUACACCGGGGGGGGCUUAAUCCCCUUAUUUUGGCACCUGAAAAUAUUACUCUUGACACUUUAAAUACACAGAA
..]]].]]]]]]]]]]](((((((.....)))..)}..]]].....))..)).....
```

C)

>5'-UTR_GLV-L13218.1 (120-500nt)

```
AGACUUCGCCACGCUUACACCAUUGAGAACACAUAGGUGGUGUAAUAUUUAUGUGUUUUGGCUGCGUGUGUCACGAGCACGAUCUAUGGGGGAAUCUAACCC
.....((....[[[[[[[[[.((((((((([]]]]]]]]]]..))))).....)[[[[[[[[(((..((([]]].)....(([[[[[[[.]]..[[[[[
AGGUGGUGUUGUGUAUGAUGAGGUACAAGCCCGUCAACACCACAGGUGGAGAGGGACAGGAGUCUCAUUUCCCCUCCAAAAACAGCAGUGGUCCGCCCC
).((((((((((((..[[[.[]))..]]]]]])))))..]]]]](((((((.....)))..))]]]]].....]]]..(((((.....(((((
UCAUGCCCUAUGAAACAUUAGGGGGCCGACACUAGUGGGCAAGCCCGAUGGUGUGGGGGACUGGAUAUGGGAACCCCAGUCCGUUAAACCCGUACGGCUU
(.([[[[[[. ....))]]]]))..)))(.((({{{{{{{{{..))((((((((((((.....]]][[]..)))))]]].[[[[[[[. ....}}}}
CGCCAGCCUACACCGGGGGGGGCUUAAUCCCCUUAUUUUGGCACCUGAAAAUAUUACUUUUGACACUUUAAACACACACAA
.}}{.)))))]]](((((((.....)))....]]}.....)).....
```