



System Biosciences Reference Control Assay Information (housekeeping small RNA controls)

Human gene for U6 snRNA 465 nt

>gi|37562|emb|X07425.1|

AAGGTCGGGCAGGAAGAGGGCCTATTTCCCATGATTCTTCATATTTGCATATACGATACAAGGCTGTTA
GAGAGATAATTAGAATTAATTTGACTGTAAACACAAAGATATTAGTACAAAATACGTGACGTAGAAAGTA
ATAATTTCTTGGGTAGTTTGCAGTTTTTAAAATTATGTTTTAAAATGGACTATCATATGCTTACCGTAAC
TTGAAAGTATTTTCGATTTCTTGGCTTTATATATCTTGTGGAAAGGACGAAACACCGTGCTCGCTTCGGCA
GCACATATACTAAAATTGGAACGATACAGAGAAGATTAGCATGGCCCCTGCGCAAGGATGACACGCAAAT
TCGTGAAGCGTTCCATATTTTTACATCAGGTTGTTTTCTGTTTTTACATCAGGTTGTTTTCTGTTTGG
TTTTTTTTTTTACACCACGTTTATACGCCGGTGCACGGTTTACCA

RNU6 assay (U6)

CGCAAGGATGACACGCAAATTC

SBI Human U6 forward control primer:

5'- **CGCAAGGATGACACGCAAATTC** -3'

22 bases. Tm= 64 ° C

Amplicon = 84 bp

Mouse U6 snRNA

[Rnu6](#)

[Links](#)

Official Symbol: Rnu6 **and Name:** U6 small nuclear RNA [*Mus musculus*]
GeneID: 19862

1. [NR_003027.1](#) RNA Sequence

Source sequence(s)

[M10329](#)

[NR_003027](#). [Reports](#) [Mus musculus U6 s...](#)[gi:94400873]

[Links](#)

```
>gi|94400873|ref|NR_003027.1| Mus musculus U6 small nuclear RNA (Rnu6)
GTGCTCGCTTCGGCAGCACATATACTAAAATTGGAACGATACAGAGAAGATTTAGCATGGCCCCTGCGCA
AGGATGACACGCAAATTCGTGAAGCGTTCCATATTTTT
```

SBI Mouse U6 forward control primer:

5'- TGGCCCCTGCGCAAGGATG -3'

19 bases. Tm= 63.7° C

Amplicon = 97bp

Human/Mouse/Rat RNU43 assay

[NR_002439](#). [Reports](#) Homo sapiens smal...[gi:71795636]

[Links](#)

>gi|71795636|ref|NR_002439.1| Homo sapiens small nucleolar RNA, C/D box 43 (SNORD43) on chromosome 22

CACAGATGATGAACTTATTGACGGGCGGACAGAAACTGTGTGCTGATTGTCACGTTCTGATT

SBI RNU43 Forward control assay primer:

5'- CTTATTGACGGGCGGACAGAAAC -3'

23 bases. Tm= 58.2° C

Amplicon = 95bp

RNU1A QuantiMir Assay (Human, Mouse, Rat & Monkey)

Identical to
Rhesus
monkey

[NR_004421](#). [Reports](#) Homo sapiens RNA,...[gi:161333872]

>gi|161333872|ref|NR_004421.1| Homo sapiens RNA, U1A small nuclear (RNU1A) on chromosome 1

ATACTTACCTGGCAGGGGAGATACCATGATCACGAAGGTGGTTTTCCAGGGCGAGGCTTATCCATTGCA
CTCCGGATGTGCTGACCCCTGCGATTTCCCAAATGTGGGAAACTCGACTGCATAATTTGTGGTAGTGGG
GGACTGCGTTCGCGCTTTCCCTG

Forward primer assay: 5' – CGACTGCATAATTTGTGGTAGTGG -3'
Primer length: 24 bases
Tm 59.4°C

Human and Mouse alignment

```
human: 1   atacttacctggcaggggagataccatgatcacgaaggtggTTTTCCAGGGCGAGGCTT 60
          |||
mouse: 1752 atacttacctggcaggggagataccatgatcacgaaggtggTTTTCCAGGGCGAGGCTT 1811
```

```
human: 61   atccattgcactccggatgtgctgacccctgcgatttccCAAATGTGGGAAACTCGACT 120
          |||
mouse: 1812 atccattgcactccggatgtgctgacccctgcgatttccCAAATGTGGGAAACTCGACT 1871
```

```
human: 121  gcataatTTGTGGTAGTGGGGGACTGCGTTCGCGCTTCCCTG 164
          |||
mouse: 1872 gcataatTTGTGGTAGTGGGGGACTGCGTTCGCGCTTCCCTG 1915
```

Human and Rat alignment

```
human: atacttacctggcaggggagataccatgatcacgaaggtggTTTTCCAG
          |||
Rat: atacttacctggcaggggagataccatgatcacgaaggtggTTTTCCAG
```

```
human: ggcgaggcttatccattgcactccggatgtgctgacccctgcgatttccc
          |||
Rat: ggcgaggcttatccattgcactccggatgtgctgacccctgcgatttccc
```

```
human: caaatgtgggaaactCGACTGCATAATTTGTGGTAGTGGGGGACTGCGTT
          |||
Rat: caaatgtgggaaactCGACTGCATAATTTGTGGTAGTGGGGGACTGCGTT
```

```
human: cgcgcttccctg
          |||
Rat: cgcgcttccctg
```

QuantiMir cDNA qPCR Performance Data

