Development of New STMS markers for sugarcane

Govindaraj P.[1], Balasundaram N.[1], Sharma T.R.[2], Bansal K.C.[2], Koundal K.R.[2] and Singh N.K.[2]

[1]Sugarcane Breeding Institute, Coimbatore, Tamilnadu, India
[2]NRC on Plant Biotechnology, Indian Agricultural Research Institute, New Delhi, India

Primer Name : **NKS 5**
Forward Sequence :**atagctcccacaccaaatgc**
Reverse Sequence :**ttggcaaaattgacccaaat**
Gene Bank acesion No. of source sequence :**SHY293476**
Type of sequence :**Genomic DNA**

Source Sequence:

```
  1 cggtgcacacatggcgcctgtaaattagatttaggatgctcaacaaattaacgtaattga

 61 agaacagcagcatcagttgaaaaaggaggcaatatattaaatccccgataattatctcca

121 aatagctcccacaccaaatgcccgtggtgccgtgaattaacctcaaaatagttctctgag

181 aatttgaaaattgtgcacattctctctcaggaaagagagattgcgtgtgtgtgtgtgtgt

241 gtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtggtatagatgttcaaattag

301 catactatttgggtcaattttgccaagcatcattgtggagtagtccangccgttcctcct

361 cttctacggagacctcaccgtcgcctccggagacgtat
```

Repeat Motif :**(gt)28**
Total names of the germplasm lines tested :**48** (view table)
No. of PCR products amplified :**5**
The size range of the PCR product :**148 - 182 bp**
The general PCR protocol used :200 µM of each dNTPs, 6pmol each of the forward and reverse primer, 0.5 units of Taq DNA polymerase

The PCR cycling condition:
Pre-denaturation: 94^0C (5 min),
25 cycles of
Denaturation: 94^0 C (50 sec),
Annealing : 54^0 C (50 sec),
Extension : 72^0 C (50 sec) and
Final extension : 72^0 C (7 min).

Reference: Unpublished