

(a)

```

Misalignment:           1           11           21           31
Reference Sequence: AACAAGCTCTTTCTTTCTCTCTGTTTAAAGATCT
                      |           | | | | | | | |
Sequencing Read:  -----AACAAGCTCTTAAAGATCT

```

(b)

Misalignment with soft-clipping:
Reference Sequence: AACAAAGCTCTTTCTTTCTCTCTGPTTTTAAGATCT
Sequencing Read: AACAAAGCTCTTTCTTTCTCTCTGPTTTTAAGATCT

Soft-clipped region

(c)

```

Correct alignment:
Reference Sequence:  AACAAAGCTCTTTCTTTCTCTCTGFTTTAAGATCT
                    ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Sequencing Read:    AACAAAGCTC-----TTAAGATCT

```

Figure 1