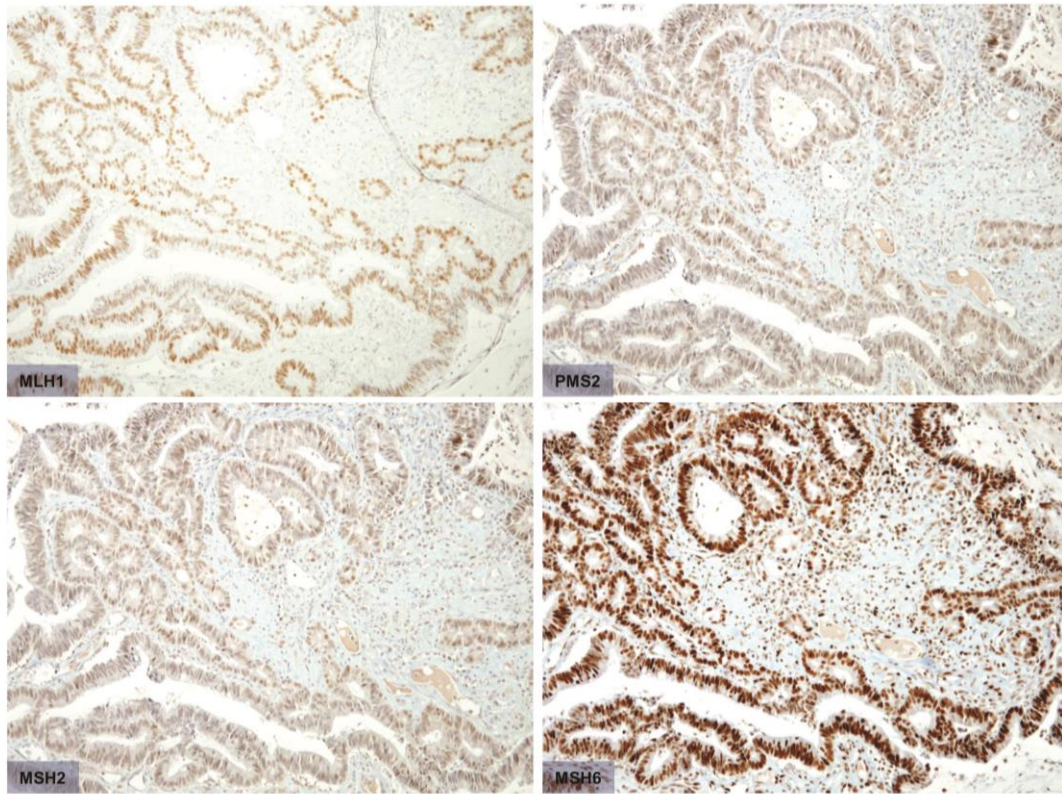
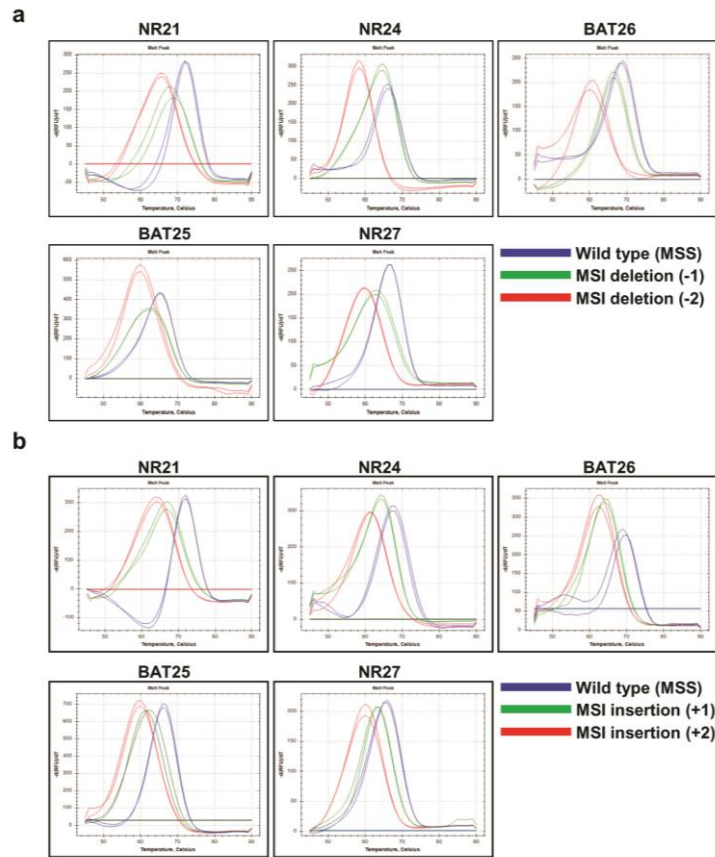


## Supplementary Figure S1



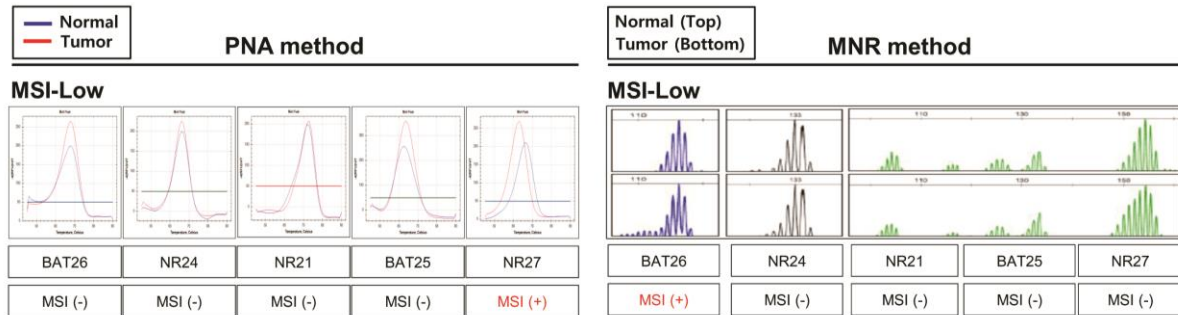
**Supplementary Fig. S1** Case no. 20 was diagnosed as MSI-H by NCI, MNR, and PNA methods but no loss of nuclear expression was detected using IHC for MMR proteins.

## Supplementary Figure S2



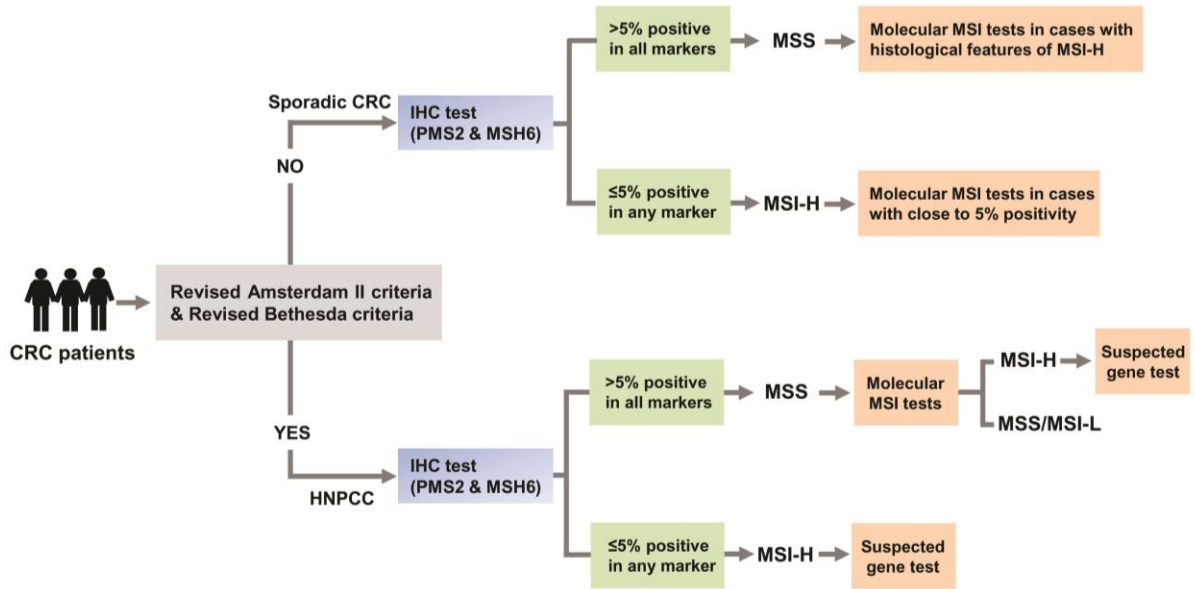
**Supplementary Fig. S2 Determination of minimal base alteration that can be detected by PNA method. (a and b) PNA analysis was performed using artificially synthesized MSI variants containing -1 or -2 deletion mutations and +1 or +2 insertion mutations.**

## Supplementary Figure S3



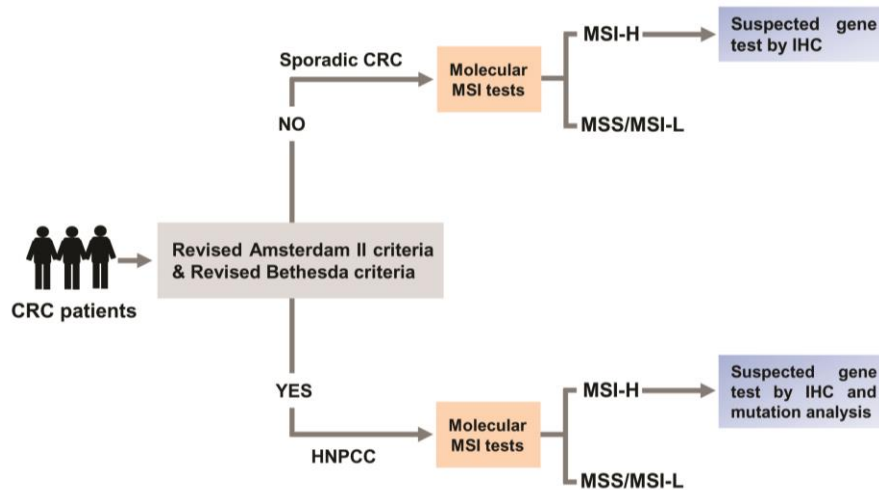
**Supplementary Fig. S3** Representative MSI analysis results of CRC samples determined as MSI-L by PNA (left panel) and MNR method (right panel).

## Supplementary Figure S4



**Supplementary Fig. S4** Type 1 algorithm for MSI screening of sporadic and hereditary CRC patients by IHC and subsequent molecular tests.

## Supplementary Figure S5



**Supplementary Fig. S5** Type 2 algorithm for MSI screening of sporadic and hereditary CRC patients by molecular tests and subsequent IHC.