

# Variants Calling

**Task Name:** snp

Call variants for an input assembly and a reference sequence using SAMtools mpileup and bcftool

**Parameters:**

*bam* - Input sorted BAM file(s) [Url datasets]

*ref* - Input reference sequence [Url datasets]

*wout* - Out file with variations [String]

*bN* - A/C/G/T only [Boolean]

*bl* - List of sites [String]

*ml* - BED or position list file [String]

*bg* - Per-sample genotypes [Boolean]

*mC* - Mapping quality downgrading coefficient [Number]

*bT* - Pair/trio calling [String]

*mB* - Disable BAQ computation [Boolean]

*me* - Gap extension error [Number]

*mE* - Extended BAQ computation [Boolean]

*bF* - Indicate PL [Boolean]

*vw* - Gap size [Number]

*m6* - Illumina-1.3+ encoding [Boolean]

*bi* - INDEL-to-SNP Ratio [Number]

*bA* - Retain all possible alternate [Boolean]

*vD* - Max number of reads per input BAM [Number]

*md* - Max number of reads per input BAM [Number]

*mL* - Max INDEL depth [Number]

*va* - Alternate bases [Number]

*v2* - BaseQ bias [String]

*vd* - Minimum read depth [Number]

*v4* - End distance bias [Number]

*v3* - MapQ bias [Number]

*Q* - Minimum RMS quality [Number]

*v1* - Strand bias [Number]

*mQ* - Minimum base quality [Number]

*mq* - Minimum mapping quality [Number]

*bd* - Min samples fraction [Number]

*b1* - N group-1 samples [Number]

*bU* - N permutations [Number]

*bG* - No genotype information [Boolean]

*ml* - No INDELs [Boolean]

*mo* - Gap open error [Number]

*mP* - List of platforms for indels [String]

*vp* - Log filtered [Boolean]

*bP* - Prior allele frequency spectrum. [String]

*bQ* - QCALL likelihood [Boolean]

*mr* - Pileup region [String]

*bs* - List of samples [String]

*mh* - Homopolymer errors coefficient [Number]

*bt* - Mutation rate [Number]

*mA* - Count anomalous read pairs [Boolean]

*vW* - A/C/G/T only [Number]

**Example:**

```
ugene snp --bam=test.bam --ref=test_ref.fa --wout=test_out.vcf
```