

Small RNA analysis software

Name	Version	Description	Main Parameter
Bowtie	bowtie-0.12.9	for mapping	-v 0 -k 1
miREvo	miREvo_v1.1	Modify mirdeep2 for known miRNA analysis;	-i -r -M -m -k -p 10 -g 50000
mirdeep2 ViennaRNA	mirdeep2_0_0_5 ViennaRNA-2.1.1	Integration miREvo and mirdeep2 for novel miRNA prediction; ViennaRNA for mirdeep2 internal call	quantifier.pl -p -m -r -y -g 0 -T 10 default
srna-tools-cli	http://srna-tools.cm p.uea.ac.uk/	for plant TAS prediction	tool phasingabundance 3pval 0.001minsize 20maxsize 26trrna
RepeatMasker	open-4.0.3	for repeat analysis , based on RepBase18.07 , using trf and irf	-species –nolow -no_is –norna –pa 8
miRanda	miRanda-3.3a	animal target prediction	-sc 140 –en 10 –scale 4 –strict –out
psRobot	psRobot_v1.2	plant target prediction	-s -t -o -p 5
DEseq2	1.12.0	for Biological repeats analysis	padj<0.05
DEGSeq	1.2.2	for no Biological repeats analysis	qvalue<0.01 log2foldchange >1
EdgeR	3.2.4	for special circumstances analysis	padj<0.05 log2foldchange >1
GOSeq/topGO	Release 2.12	GO enrichment	enrichmentMethod: Wallenius; padjust:BH
KOBAS	v2.0	KEGG enrichment	blastx 1e-10; padjust:BH