

# Epigenomics

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## Supplementary Tables

A specific criteria is used for enclosure of tools in Epigenomics. Softwares which are included are due to these specific reasons:

- Publication Date
- Freeware License
- Linux Based
- Offline

**Table 1. Epigenomics Selection Criteria.**

Sr No.	Software Tools Names	Post Date (2014)	Free	Linux	Offline	Installed
<b>DNA-Protein interactions</b>						
<i>4C-seq analysis</i>						
1	4C-ker [1]	✓	✓	✓	✓	✓
2	Basic4Cseq [2]	✓	✓	✓	✓	✓
3	FourCSeq [3]	✓	✓	✓	✓	✓
4	fourSig [4]	✓	✓	✓	✓	✓
5	HTSstation [5]	✓	✓	✓	✓	✓
6	w4CSeq [6]	✓	✓			
<i>5C-seq analysis</i>						
7	HiFive [7]	✓	✓	✓	✓	✓
8	MCMC5C [8]		✓	✓	✓	
9	ShRec3D [9]	✓	✓	✓	✓	✓
10	Sushi.R [10]	✓	✓	✓	✓	✓
<i>3C-seq analysis</i>						
11	chromoHBM [11]	✓	✓	✓	✓	✓
12	InfMod3DGen [12]	✓	✓	✓	✓	✓
13	r3Cseq [13]		✓	✓	✓	

Sr No.	Software Tools Names	Post Date (2014)	Free	Linux	Offline	Installed
<i>ChIP-on-chip analysis</i>						
14	GeneNetworkBuilder [14]		✓	✓	✓	
15	kmerHMM [15]		✓	✓	✓	
<i>ChIA-PET analysis</i>						
16	Mango [16]	✓	✓	✓	✓	✓
17	3D-GNOME [17]	✓	✓			
18	diffloop [18]	✓	✓	✓	✓	✓
19	ChiaSig [19]	✓	✓	✓	✓	✓
20	Delta [20]	✓	✓			
<i>ChIP-exo analysis</i>						
21	ChIP-nexus [21]	✓	✓	✓	✓	✓
22	PeakXus [22]	✓	✓	✓	✓	✓
23	CexoR [23]	✓	✓	✓	✓	✓
24	Q-nexus [24]	✓	✓	✓	✓	✓
<i>DNA-protein interaction analysis</i>						
Chromatin-state detection						
25	chromstaR [25]	✓	✓	✓	✓	✓
26	hiHMM [26]	✓	✓	✓	✓	✓
27	EpiCSeq [27]	✓	✓	✓	✓	✓
28	GenoSTAN [28]	✓	✓	✓	✓	✓
29	Deopen [29]	✓	✓	✓	✓	✓
Histone modification prediction						
30	DeepChrome [30]	✓	✓			
31	Mutalisk [31]	✓	✓			
32	DeepDiff [32]	✓	✓	✓	✓	✓
Unclassified Tools						
33	TRX-LOGOS [33]	✓	✓	✓	✓	✓
<i>DNA-protein interaction Databases</i>						
Chromatin-state databases						
34	Cistrome DB [34]	✓	✓			
Histone modification prediction						
35	EpiFactors [35]	✓	✓			
36	dbHiMo [36]	✓	✓			
37	WERAM [37]	✓	✓			
Chromatine interaction databases						
38	TFmapper [38]	✓	✓			
39	Multicontactchromatin [39]	✓	✓			
40	3DGD [40]	✓	✓			
41	4DGenome [41]	✓	✓			
<b>Nucleosome positioning</b>						
<i>Nucleosome positioning</i>						
42	nuMAP [42]	✓	✓			
43	iNuc-PseKNC [43]	✓	✓			
44	LeNup [44]	✓	✓	✓	✓	✓

Sr No.	Software Tools Names	Post Date (2014)	Free	Linux	Offline	Installed
<i>ATAC-seq analysis</i>						
45	SUSHI [45]	✓	✓	✓	✓	✓
46	ATACseqQC [46]	✓	✓	✓	✓	✓
Chromatin accessibility and TF Activity						
47	I-ATAC [47]	✓	✓	✓		
48	HMMRATAC [48]	✓	✓	✓	✓	✓
49	MMARGE [49]	✓	✓	✓	✓	✓
50	DAStk [50]	✓	✓		✓	
51	DeepATAC [51]	✓	✓	✓	✓	✓
single cell ATAC-seq analysis						
52	chromVAR [52]	✓	✓	✓	✓	✓
53	cisTopic [53]	✓	✓	✓	✓	✓
54	plate-scATAC-seq [54]	✓	✓	✓	✓	✓
Bioinformatics workflows						
55	atacR [55]	✓	✓	✓	✓	✓
56	ATAC-pipe [56]	✓	✓	✓	✓	✓
57	esATAC [57]	✓	✓	✓	✓	✓
<b>Bioinformatics tools</b>						
<i>Epigenome Data Visualization</i>						
Tag density plot visualization						
58	ngs.plot [58]	✓		✓	✓	
59	ChIPseeker [59]	✓	✓	✓	✓	✓
60	SeqPlots [60]	✓	✓	✓		
61	metaseq [61]	✓	✓	✓	✓	✓
62	iTagPlot [62]	✓	✓	✓	✓	✓
Venn diagram creation						
63	gplots [63]	✓	✓	✓	✓	✓
64	eulerAPE [64]	✓	✓	✓		
65	jvenn [65]	✓	✓			
66	Vennerable [66]		✓	✓	✓	
67	OrthoVenn [67]	✓	✓			
68	GeneVenn [68]		✓			
69	venneuler [69]		✓	✓	✓	
70	Anduril [70]		✓	✓	✓	
71	VennMaster [71]		✓	✓	✓	
72	VENNTURE [72]		✓			
73	CanvasXpress [73]	✓	✓	✓	✓	✓
74	VennBLAST [74]	✓	✓			
75	canvasDesigner [75]	✓	✓			
76	BioVenn [76]		✓			
77	AnyExpress [77]		✓	✓	✓	
78	DrawVenn [78]		✓	✓		
79	NeuVenn [79]	✓	✓			
DNA methylation visualization						
80	EpiExplorer [80]		✓			
81	CpGviewer [81]		✓			

Sr No.	Software Tools Names	Post Date (2014)	Free	Linux	Offline	Installed
82	VizHub [82]	✓	✓			
83	methyAnalysis [83]		✓	✓	✓	
84	MethylViewer [84]		✓	✓	✓	
85	methVisual [85]		✓	✓	✓	
86	Epiviz [86]	✓	✓			
87	MethPat [87]	✓	✓		✓	
88	TABSAT [88]	✓	✓			
89	Epigenomics in JBrowse [89]	✓	✓	✓	✓	✓
90	iMethy [90]		✓	✓	✓	
91	Methylyzer [91]		✓			
92	BSviewer [92]	✓		✓	✓	
93	MeViz [93]	✓	✓	✓	✓	✓
94	chroGPS [94]		✓	✓	✓	
95	MassArray [95]		✓	✓	✓	
96	MethTools [96]		✓	✓	✓	
97	Methylmapper [97]		✓	✓	✓	
Genome Viewers						
98	EMBOSS [98]		✓	✓		
99	GBrowse [99]		✓	✓	✓	
100	JBrowse [100]		✓			
101	rtracklayer [101]		✓	✓		
102	ZENBU [102]	✓	✓			
103	ggbio [103]		✓	✓	✓	
104	Apollo [104]		✓	✓	✓	
105	GenePlotter [105]		✓	✓	✓	
106	Fastbreak [106]		✓			
107	Microreact [107]	✓	✓			
108	GenomeView [108]		✓	✓		
109	gaggle [109]		✓	✓		
110	GenomeGraphs [110]		✓	✓	✓	
111	GenVisR [111]	✓	✓	✓		
112	GenomeJack [112]		✓	✓		
113	GenPlay [113]		✓	✓		
114	SynTView [114]		✓	✓	✓	
115	FriPan [115]		✓			
116	IGV [116]		✓			
117	Circlearator [117]	✓	✓	✓	✓	✓
118	GenePalette [118]			✓		
119	VisSR [119]		✓	✓		
120	3D Genome Browser [120]	✓	✓			
121	TASUKE [121]		✓	✓		
122	Gff2ps [122]		✓	✓	✓	
123	CisGenome Browser [123]			✓		
124	Trackster [124]		✓			
125	Genewindow [125]		✓			
126	IRscope [126]	✓	✓			
127	WiggleTools [127]		✓	✓		
128	Biodalliance [128]	✓	✓			
129	DensityMap [129]		✓			

Sr No.	Software Tools Names	Post Date (2014)	Free	Linux	Offline	Installed
130	BasePlayer [130]	✓	✓	✓		
131	ColoWeb [131]	✓	✓			
132	GenomicInteractions [132]		✓	✓	✓	
133	PlasmaDNA [133]		✓			
134	EPIC-CoGe [134]	✓	✓			
135	OmicBrowse [135]		✓		✓	
136	Cosmoss [136]		✓			
137	Pairoscope [137]		✓	✓	✓	
138	BugView [138]		✓	✓		
139	HiCBrowser [139]	✓	✓	✓	✓	✓
140	GenomePlot [140]			✓	✓	
141	chromPlot [141]	✓		✓	✓	
142	caOmicsV [142]	✓	✓	✓	✓	✓
143	karyoploteR [143]	✓	✓	✓	✓	✓
144	VisualRebase [144]		✓	✓		
145	PopFly [145]		✓			
146	PBrowse [146]	✓	✓			
147	myGenomeBrowser [147]	✓	✓			
148	GUPPY [148]			✓	✓	
149	tracktables [149]	✓	✓	✓	✓	✓
150	gFACs [150]		✓	✓	✓	
151	Scribl [151]		✓	✓	✓	
152	Idiogram [152]		✓	✓	✓	
153	gtrellis [153]	✓	✓	✓	✓	✓
154	GeneViTo [154]			✓		
155	epiTAD [155]	✓	✓			
156	Skittle [156]		✓			
157	ERGO [157]			✓		
158	Blobsplorer [158]		✓	✓	✓	
159	SeqBox [159]	✓			✓	
160	ZMap [160]		✓	✓	✓	
161	CrossBrowse [161]	✓	✓	✓		
162	GenomeHubs [162]	✓	✓	✓	✓	✓
163	AncestryView [163]	✓	✓	✓	✓	✓
164	SeqGenome Browser [164]		✓	✓		
165	PopHuman [165]	✓	✓	✓		
166	Savant [166]		✓	✓		
167	D3GB [167]	✓	✓	✓		
168	PoGo [168]		✓	✓	✓	
169	chromoMap [169]	✓	✓	✓	✓	✓
170	Squiggle [170]	✓	✓	✓	✓	✓
171	MitoZ [171]	✓	✓	✓	✓	✓
172	Artemis [172]		✓	✓		
173	ASCIIGenome [173]	✓	✓	✓	✓	✓
174	kmerPyramid [174]	✓	✓	✓	✓	✓
175	Paplot [175]	✓	✓	✓	✓	✓
176	bulkVis [176]	✓	✓	✓	✓	✓
177	FluentDNA [177]		✓	✓	✓	
178	genomeview [178]	✓	✓	✓	✓	✓

Sr No.	Software Tools Names	Post Date (2014)	Free	Linux	Offline	Installed
179	GC-Profile [179]	✓	✓			
180	GeneTrack [180]		✓	✓	✓	
181	Genome2D [181]		✓	✓		
182	GenomeComp [182]		✓	✓		
183	HiView [183]		✓			
184	my5C [184]		✓			
185	ViewGene [185]			✓	✓	
186	chromoWIZ [186]		✓			
187	MetaLook [187]		✓	✓		
188	LocusView [188]		✓		✓	
189	ABrowse [189]		✓	✓		
190	GraphDNA [190]		✓	✓		
<i>Epigenome data enrichment</i>						
Phenotype enrichment analysis						
191	PrediXcan [191]	✓	✓	✓	✓	✓
192	MamPhEA [192]		✓			
193	PhenoNet [193]	✓	✓	✓	✓	✓
194	POEAS [194]	✓	✓			
195	Phenopredict [195]	✓	✓	✓	✓	✓
196	DroPhEA [196]		✓			
197	modPhEA [197]	✓	✓			
198	PhenotypeSeeker [198]	✓	✓	✓	✓	✓
Motif enrichment analysis						
199	MEME-ChIP [199]		✓			
200	CentriMo [200]	✓	✓			
201	BaMM!motif [201]	✓	✓	✓	✓	✓
202	Clover [202]		✓	✓	✓	
203	PASTAA [203]		✓	✓	✓	
204	CENTDIST [204]		✓			
205	GOMo [205]			✓	✓	
206	i-cisTarget [206]		✓			
207	PWMEnrich [207]		✓	✓	✓	
208	RTFBSDB [208]	✓	✓	✓	✓	✓
209	hiddenDomains [209]	✓	✓	✓	✓	✓
210	GANN [210]		✓	✓	✓	
211	Regmex [211]	✓	✓	✓	✓	✓
212	POIMs [212]		✓	✓	✓	
213	GenFam [213]	✓	✓			
214	LocaMo Finder [214]		✓			
215	chequeR [215]	✓	✓	✓	✓	✓
216	winflat [216]		✓	✓	✓	
217	JFreq [217]	✓	✓	✓		
218	GenometriCorr [218]		✓	✓	✓	
219	PscanChIP [219]		✓			
220	LOLA [220]	✓	✓	✓	✓	✓
221	DRIMust [221]		✓			
222	genomation [222]	✓	✓	✓	✓	✓
223	EDD [223]	✓	✓			

Sr No.	Software Tools Names	Post Date (2014)	Free	Linux	Offline	Installed
224	ChIP-Part [224]		✓			
225	LONUT [225]		✓	✓	✓	
226	MUSIC [226]	✓	✓	✓	✓	✓
227	MSR [227]	✓	✓	✓	✓	✓
228	GREAT [228]		✓			
229	RECAP [229]	✓	✓	✓	✓	✓
230	Bedsect [230]	✓	✓			
Over-representation analysis						
231	DAVID [231]		✓			
232	Blast2GO [232]			✓		
233	BiNGO [233]		✓	✓		
234	WEGO [234]		✓			
235	WebGestalt [235]		✓			
236	GOseq [236]		✓	✓	✓	
237	ClueGO [237]			✓		
238	GOstats [238]		✓	✓	✓	
239	GenMAPP [239]		✓	✓	✓	
240	GOstat [240]		✓			
241	Babelomics [241]	✓	✓	✓	✓	✓
242	GoMiner [242]		✓	✓	✓	
243	GOEAST [243]		✓			
244	FuncAssociate [244]		✓			
245	ArrayTrack [245]		✓			
246	FunSpec [246]		✓			
247	GO-Elite [247]		✓	✓	✓	
248	GOAtools [248]	✓	✓	✓	✓	✓
249	PageMan [249]		✓	✓		
250	STEM [250]			✓	✓	
251	ErmineJ [251]		✓	✓	✓	
252	CARMAweb [252]		✓			
253	Onto-Tools [253]		✓			
254	EasyGO [254]		✓			
255	CisFinder [255]		✓	✓	✓	
256	GOFFA [256]		✓	✓	✓	
257	GOHyperGAll [257]		✓	✓	✓	
258	BayGO [258]		✓			
259	MET [259]	✓	✓			
260	Categorizer [260]	✓	✓	✓	✓	✓
261	goCluster [261]	✓	✓	✓		
262	myTAI [262]	✓	✓	✓	✓	✓
263	MOTVIS [263]		✓	✓	✓	
264	RegulatorTrail [264]	✓	✓			
265	GOexpress [265]	✓	✓	✓	✓	✓
266	REA [266]		✓	✓	✓	
267	GOTM [267]		✓			
268	ProbCD [268]		✓			
269	mvGST [269]	✓	✓	✓	✓	✓
270	OE2GO [270]		✓		✓	

Sr No.	Software Tools Names	Post Date (2014)	Free	Linux	Offline	Installed
Topology enrichment analysis						
271	ChIPseeqer [271]		✓	✓	✓	
272	HOMER [272]		✓	✓	✓	
273	TopGO [273]		✓		✓	
274	GeneCodis [274]		✓			
275	CHRONOS [275]	✓	✓	✓	✓	✓
276	Ontologizer [276]		✓	✓	✓	
277	SPIA [277]		✓	✓	✓	
278	GOSim [278]		✓	✓	✓	
279	EnrichNet [279]		✓			
280	SubpathwayMiner [280]		✓	✓	✓	
281	ProfCom [281]		✓			
282	NOA [282]		✓	✓		
283	PathNet [283]	✓	✓	✓	✓	✓
284	BrainCell [284]	✓	✓	✓	✓	✓
285	NetGSA [285]	✓	✓	✓	✓	✓
286	sLDA [286]		✓	✓	✓	
287	DEGraph [287]		✓	✓	✓	
288	GANPA [288]		✓	✓	✓	
289	EnrichmentBrowser [289]	✓	✓	✓	✓	✓
290	TEAK [290]		✓	✓		
291	ToPASeq [291]	✓	✓	✓	✓	✓
292	topologyGSA [292]	✓	✓	✓	✓	✓
293	CePa [293]		✓	✓	✓	
294	timeClip [294]	✓	✓	✓	✓	✓
295	PI [295]	✓	✓			
296	ICoVeR [296]	✓	✓	✓	✓	✓
297	AMBIENT [297]		✓	✓	✓	
298	ADGO [298]		✓			
299	ACST [299]		✓	✓	✓	
300	MORPH [300]	✓	✓	✓		
Differential motif enrichment analysis						
301	MultiGPS [301]	✓	✓	✓	✓	✓
302	SANEFALCON [302]	✓		✓	✓	
303	MuSERA [303]	✓				
304	DChIPRep [304]	✓	✓	✓	✓	✓
305	SignalSpider [305]	✓	✓	✓	✓	✓
306	Jmosaics [306]		✓	✓	✓	
307	ChIPdig [307]	✓	✓	✓		
Gene set enrichment analysis						
308	limma [308]		✓	✓	✓	
309	edgeR [309]		✓	✓	✓	
310	DESeq2 [310]	✓	✓	✓	✓	✓
311	GSEA [311]		✓	✓	✓	
312	xCell [312]	✓	✓			
313	KOBAS [313]		✓			
314	KAAS [314]		✓			
315	BaseSpace [315]	✓		✓	✓	



Sr No.	Software Tools Names	Post Date (2014)	Free	Linux	Offline	Installed
316	Strand NGS [316]	✓		✓		
317	GSVA [317]		✓	✓	✓	
318	Pathview [318]		✓	✓	✓	
319	Gitools [319]		✓			
320	piano [320]		✓	✓	✓	
<b>DNA Modifications</b>						
<i>DNA Modification Analysis</i>						
321	AltAnalyze [321]	✓	✓	✓	✓	✓
322	scLVM [322]	✓	✓	✓	✓	✓
323	Repliscan [323]	✓	✓	✓	✓	✓
<i>DNA Modification Databases</i>						
324	GEO [324]	✓	✓			
325	DevMouse [325]	✓	✓			
326	ViralEpi [326]	✓	✓			
327	dBEM [327]	✓	✓			
328	BLUEPRINT [328]		✓			
329	MethHC [329]	✓	✓			
330	iMETHYL [330]	✓	✓			
331	START [331]	✓	✓			
332	MethyCancer [332]		✓			
333	DNAmoD [333]		✓			
334	BCaPE [334]	✓	✓			
335	EWASdb [335]	✓	✓			
336	MetaImprint [336]	✓	✓			
337	Geneimprint [337]		✓			
338	EICO [338]		✓			
339	FACER [339]	✓	✓			
<i>DNA methylation array analysis</i>						
340	Marmal-aid [340]		✓	✓	✓	
341	SCANN [341]		✓	✓	✓	
342	COHCAP [342]		✓	✓	✓	
343	MultiDataSet [343]	✓	✓	✓	✓	✓
344	MMCOP [344]	✓	✓			
345	ACES [345]		✓	✓	✓	
346	Clustrophile [346]		✓	✓	✓	
347	WFMM [347]		✓	✓	✓	
348	CpGassoc [348]		✓	✓	✓	
349	IMA [349]		✓	✓	✓	
<i>BS-seq analysis</i>						
350	QUMA [350]		✓			
351	RnBeads [351]	✓	✓	✓	✓	✓
352	BDPC [352]		✓			
353	MethPipe [353]		✓	✓	✓	
354	SAAP-RRBS [354]		✓	✓	✓	
355	Genomic HyperBrowser [355]		✓			
356	OTP [356]	✓	✓			

Sr No.	Software Tools Names	Post Date (2014)	Free	Linux	Offline	Installed
MeDIP-seq analysis						
357	MEDME [357]		✓	✓	✓	
358	RepiTools [358]		✓	✓	✓	
359	MeDUSA [359]		✓	✓	✓	
360	MeQA [360]		✓	✓	✓	
361	DISMISS [361]	✓	✓	✓	✓	✓
oxBS/TAB/fCAB/CAB-seq						
362	MOABS [362]	✓	✓	✓	✓	✓
363	MLML [363]		✓	✓	✓	
MethylCap-seq analysis						
364	Methylpy [364]	✓	✓	✓	✓	✓
365	MethylAction [365]		✓	✓	✓	

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