附录 1 甘蓝型油菜 *ZF-HD* 基因名称、ID 和基本信息

Appendix 1 Name, ID and various features of *ZF-HD* genes in *Brassica napus*

Gene symbol	Gene ID	Peptide/aa	Molecular weight /Da	Theoretical PI	Localization predicted	Intron number
BnZF-HD1	BnaA01g14020D	225	24305.1	8.44	nucl	0
BnZF-HD2	BnaA02g14430D	255	27631	8.44	nucl	0
BnZF-HD3	BnaA02g26470D	298	34071.9	8.49	nucl	0
BnZF-HD4	BnaA02g35950D	263	29038.5	8.99	nucl	1
BnZF-HD5	BnaA03g08890D	181	20385.3	9.37	nucl	0
BnZF-HD6	BnaA03g41020D	243	27560.3	9.7	nucl	0
BnZF-HD7	BnaA04g02360D	210	23146.9	7.62	nucl	0
BnZF-HD8	BnaA04g09610D	317	34366	8.83	nucl	0
BnZF-HD9	BnaA06g09270D	311	35112.2	7.01	cyto	0
BnZF-HD10	BnaA06g13000D	88	9832.04	8.59	cyto	0
BnZF-HD11	BnaA06g31200D	344	37301	8.23	nucl	0
BnZF-HD12	BnaA06g31210D	91	9789.9	7.59	chlo	1
BnZF-HD13	BnaA07g02030D	84	9223.58	6.82	cyto	0
BnZF-HD14	BnaA07g21770D	297	32612.1	8.44	nucl	0
BnZF-HD15	BnaA07g22120D	97	10648.8	8.85	chlo	0
BnZF-HD16	BnaA07g28170D	231	25061	8.29	nucl	0
BnZF-HD17	BnaA07g31690D	94	10347.7	8.95	mito	0
BnZF-HD18	BnaA07g31990D	288	31798.5	9.01	nucl	1
BnZF-HD19	BnaA08g14660D	210	23146.9	7.62	nucl	0
BnZF-HD20	BnaA08g22380D	88	9844.98	8.59	mito	0
BnZF-HD21	BnaA09g02420D	98	10568.8	8.57	mito	0
BnZF-HD22	BnaA09g02430D	281	30316.5	7.71	nucl	1
BnZF-HD23	BnaA09g31550D	219	25077	9.64	mito	0
BnZF-HD24	BnaA09g44460D	88	9709.83	8.25	chlo	0
BnZF-HD25	BnaA09g45550D	172	20331	9.3	nucl	0
BnZF-HD26	BnaA09g52500D	241	26792.2	8.56	nucl	0
BnZF-HD27	BnaA09g57080D	314	35388.6	6.97	cyto	0
BnZF-HD28	BnaA10g18900D	263	28452.8	7.24	nucl	0
BnZF-HD29	BnaAnng04880D	272	30410	6.52	nucl	0
BnZF-HD30	BnaAnng31040D	179	20023.7	9.28	nucl	0
BnZF-HD31	BnaAnng34110D	257	29515.8	9.1	nucl	1
BnZF-HD32	BnaC01g16510D	223	24130.9	8.65	nucl	0
BnZF-HD33	BnaC02g19350D	255	27587	8.44	nucl	0
BnZF-HD34	BnaC02g34620D	300	34345.2	8.49	nucl	0
BnZF-HD35	BnaC02g43770D	269	30087.7	6.31	nucl	0
BnZF-HD36	BnaC03g13900D	133	14124.6	6.02	mito	0
BnZF-HD37	BnaC03g49000D	293	32255.6	5.77	nucl	0

BnZF-HD38	BnaC03g65280D	92	9710.93	7.8	mito	0
BnZF-HD39	BnaC04g55850D	277	29748.8	8.25	nucl	1
BnZF-HD40	BnaC05g10680D	306	34421.5	7.79	cyto	0
BnZF-HD41	BnaC05g14490D	88	9832.04	8.59	cyto	0
BnZF-HD42	BnaC05g19960D	238	25894.9	8.41	nucl	1
BnZF-HD43	BnaC06g22480D	294	32429.2	9.06	nucl	0
BnZF-HD44	BnaC06g22850D	97	10648.8	8.85	chlo	0
BnZF-HD45	BnaC06g28000D	256	27655.8	8.04	nucl	0
BnZF-HD46	BnaC06g35530D	94	10417.7	8.84	mito	0
BnZF-HD47	BnaC06g36000D	299	32678.4	8.86	nucl	0
BnZF-HD48	BnaC07g25390D	91	9803.92	7.59	nucl	1
BnZF-HD49	BnaC07g25410D	339	36689.5	8.22	nucl	0
BnZF-HD50	BnaC07g31930D	245	27886.9	9.78	nucl	0
BnZF-HD51	BnaC08g11750D	210	23102.8	7.64	nucl	0
BnZF-HD52	BnaC08g18380D	88	9640.87	8.95	chlo	0
BnZF-HD53	BnaC08g22280D	215	24632.5	9.66	nucl	0
BnZF-HD54	BnaC08g37040D	88	9771.9	8.59	mito	0
BnZF-HD55	BnaC08g39390D	172	20317	9.28	nucl	0
BnZF-HD56	BnaC08g39630D	315	35578.8	6.84	cyto	0
BnZF-HD57	BnaC09g01960D	98	10594.9	8.57	mito	0
BnZF-HD58	BnaC09g01970D	312	33891.5	8.45	nucl	0
BnZF-HD59	BnaC09g06950D	255	28336.8	6.26	nucl	0
BnZF-HD60	BnaCnng08060D	261	28811.2	8.99	nucl	1
BnZF-HD61	BnaCnng66730D	265	30588.2	9.28	nucl	1
BnZF-HD62	BnaCnng71430D	257	29359.2	9.47	nucl	0

Nucl: 细胞核; chlo: 叶绿体; cyto: 溶酶体; mito: 线粒体