

Table 1. Genes Containing DExH/D-box Motifs in InterPro Database

CG Number	Gene Name	Best <i>S. cerevisiae</i>	Match Score	Best <i>C. elegans</i>	Match Score	Best <i>H. sapiens</i>	Match	Score	Comments
CG10077	<i>CG10077</i>	YNL112W ( <i>DBP2</i> )	4.1e-143	F58E10.3	2.3e-141	NP_004387.1 ( <i>DDX5</i> )		1e-177	---
CG10210	<i>tst</i>	YLR398C ( <i>SKI2</i> )	2.8e-180	F01G4.3	3.2e-189	NP_008860.3 ( <i>SKIV2L</i> )		0.0	Involved in cytoplasmic 3'-5' mRNA decay
CG10279	<i>Rm62</i>	YNL112W ( <i>DBP2</i> )	1.5e-138	F58E10.3	5.5e-133	NP_006377.2 ( <i>DDX17</i> )		1e-169	Modulates U1 snRNP binding
CG10333	<i>CG10333</i>	YNL112W ( <i>DBP2</i> )	2.8e-81	F01F1.7	5.5e-227	NP_004809.2 ( <i>DDX23</i> )		0.0	Prp28 homolog, U5-100K homolog
CG10445	<i>CG10445</i>	YLR032W ( <i>RAD5</i> )	5.3e-51	T23H2.3b	7.6e-71	NP_003585.3 ( <i>TTF2</i> )		5e-76	Involved in RNA polymerase II transcription termination
CG10689	<i>CG10689</i>	YER013W ( <i>PRP22</i> )	0.0	C04H5.6 ( <i>mog-4</i> )	1.3e-303	NP_003578.1 ( <i>DHX16</i> )		0.0	Prp22 homolog
CG10777	<i>CG10777</i>	YNL112W ( <i>DBP2</i> )	7.8e-133	F58E10.3	3.7e-130	NP_006377.2 ( <i>DDX17</i> )		1e-162	---
CG11107	<i>CG11107</i>	YGL120C ( <i>PRP43</i> )	4.7e-229	F56D2.6a	1.6e-275	NP_001349.1 ( <i>DHX15</i> )		0.0	Prp43 Homolog
CG11403	<i>CG11403</i>	TPL008W ( <i>CHL1</i> )	3.8e-88	M03C11.2	4.6e-104	NP_085911.1 ( <i>DDX11</i> )		1e-153	<i>S. cerevisiae</i> CHL1-like helicase homolog
CG12759	<i>Dbp45A</i>	YHR169W ( <i>DBP8</i> )	8.9e-77	H20J04.4	5e-75	NP_061943.2 ( <i>DDX49</i> )		1e-117	---
CG14443	<i>CG14443</i>	YNL112W ( <i>DBP2</i> )	6e-55	F58E10.3	1.4e-45	NP_004387.1 ( <i>DDX5</i> )		4e-60	---
CG14637	<i>abs</i>	YNL112W ( <i>DBP2</i> )	7.2e-75	H27M09.1	4.7e-166	NP_057306.2 ( <i>DDX41</i> )		0.0	Helicase required for axon guidance
CG1582	<i>CG1582</i>	YLR419W	1.3e-103	F52B5.3	1.7e-85	NP_945314.1 ( <i>DHX57</i> )		0.0	---
CG1666	<i>Hlc</i>	YLR276C ( <i>DBP9</i> )	2.5e-100	C24H12.4a	3e-93	NP_061955.1 ( <i>DDX56</i> )		1e-134	---
CG31212	<i>CG31212</i>	YGL150C ( <i>INO80</i> )	3.3e-202	Y111B2A.23	4e-114	NP_115572.2		0.0	KIAA1259: hypothetical protein KIAA1259
CG3158	<i>spn-E</i>	YLR419W	3.6e-51	T07D4.3 ( <i>rha-1</i> )	6.4e-65	XP_058619.5 ( <i>C14orf75</i> )		1e-172	---
CG3225	<i>CG3225</i>	YER013W ( <i>PRP22</i> )	8.6e-127	Y67D2.6	6e-143	NP_068750.2 ( <i>DHX35</i> )		0.0	Prp22 Homolog, required for second step and release of mRNA from spliceosome
CG32344	<i>CG32344</i>	YDL031W ( <i>DBP10</i> )	3.9e-115	Y94H6A.5a	1.3e-138	NP_076977.2 ( <i>DDX54</i> )		1e-168	---
CG32533	<i>CG32533</i>	YNR011C ( <i>PRP2</i> )	7.1e-82	Y37E11AM.1	7.7e-166	NP_055496.2 ( <i>DHX34</i> )		0.0	Prp2 Homolog, required for first step of splicing
CG32604	<i>I(1)G0007</i>	YKR086W ( <i>PRP16</i> )	6.7e-207	K03H1.2 ( <i>mog-1</i> )	0.0	NP_054722.2 ( <i>DHX38</i> )		0.0	PRP16, required for second step of splicing
CG3506	<i>vas</i>	YOR204W ( <i>DED1</i> )	8.9e-109	Y54E10A.9a ( <i>vbh-1</i> )	3e-109	NP_061912.1 ( <i>DDX4</i> )		1e-135	---
CG3561	<i>CG3561</i>	YPL119C ( <i>DBP1</i> )	2e-26	T21G5.3 ( <i>glh-1</i> )	1.2e-28	NP_060850.1 ( <i>DDX28</i> )		4e-69	---
CG3696	<i>kis</i>	YER164W ( <i>CHD1</i> )	1.9e-137	T04D1.4	0.0	XP_098762.6		0.0	---
CG3733	<i>Chd1</i>	YER164W ( <i>CHD1</i> )	4.1e-186	H06O01.2	4.4e-286	NP_001262.1 ( <i>CHD2</i> )		0.0	chromodomain helicase DNA binding protein 2
CG3753	<i>CG3753</i>	YFR038W	1.1e-32	C16A3.1a	4.6e-97	NP_054859.2 ( <i>SMARCAL1</i> )		1e-103	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a-like 1
CG4049	<i>CG4049</i>	YGL163C ( <i>RAD54</i> )	1.2e39	C27B7.4	6.4e-118	NP_055921.1		1e-149	SRISNF2L: KIAA0809 protein

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CG4078	CG4078	YER171W ( <i>RAD3</i> )	7.2e-62	F25H2.13	2.5e-104	NP_057518.1 ( <i>C20orf41</i> )	1e-180	---
CG4261	<i>Hel89B</i>	YPL082C ( <i>MOT1</i> )	3.6e-251	F15D4.1 ( <i>btf-1</i> )	6.4e-86	NP_003963.1 ( <i>BTAF1</i> )	0.0	BTAF1 RNA polymerase II, B-TFIID transcription factor-associated, TAFII170
CG4548	<i>XNP</i>	YGL163C ( <i>RAD54</i> )	7.5e-58	B0041.7 ( <i>xnp-1</i> )	1.6e-145	NP_000480.2 ( <i>ATRX</i> )	0.0	RAD54 homolog, alpha thalassemia/mental retardation syndrome X-linked
CG4792	<i>Dcr-1</i>	YMR239C ( <i>RNT1</i> )	0.00038	K12H4.8 ( <i>dcr-1</i> )	3e-206	NP_085124.2 ( <i>DICER1</i> )	1e-118	Dicer1, Involved in RNAi, cleaves dsRNA
CG4901	CG4901	YER013W ( <i>PRP22</i> )	1.5e-99	K03H1.2 ( <i>mog-1</i> )	8.8e-110	NP_064547.2 ( <i>DHX33</i> )	1e-146	Related to Prp22
CG4916	<i>me31B</i>	YDL160C ( <i>DHH1</i> )	3.1e-154	C07H6.5 ( <i>cgh-1</i> )	1.6e-172	NP_004388.1 ( <i>DDX6</i> )	1e-177	---
CG5205	CG5205	YGR271W ( <i>SLH1</i> )	0.0	Y46G5A.4	0.0	NP_006819.1 ( <i>HELIC1</i> )	0.0	helicase, ATP binding 1
CG5589	CG5589	YGL171W ( <i>ROK1</i> )	9.7e-87	R05D11.4	1.1e-77	NP_008941.2 ( <i>DDX52</i> )	1e-138	---
CG5800	CG5800	YJL033W ( <i>HCA4</i> )	6.4e121	Y23H5B.6	1.3e-115	NP_004389.2 ( <i>DDX10</i> )	1e-178	---
CG5899	CG5899	YOR290C ( <i>SNF2</i> )	1.3e-79	M03C11.8	3.3e-129	NP_064544.1 ( <i>SMARCAD1</i> )	1e-161	SWI/SNF-related, matrix-associated actin-dependent regulator of chromatin, subfamily a, containing DEAD/H box 1
CG5931	CG5931	YER172C ( <i>BRR2</i> )	0.0	Y46G5A.4	0.0	NP_054733.2 ( <i>U5-200K</i> )	0.0	Brr2/U5 snRNP-specific protein, 200-KD homolog, promotes conformational changes in the spliceosome required for the first step of splicing
CG6227	CG6227	YBR237W ( <i>PRP5</i> )	5.4e-103	F53H1.1a	2.8e-199	NP_055644.2 ( <i>DDX46</i> )	0.0	Prp5-like DEAD-box protein
CG6375	<i>pit</i>	YMR290C ( <i>HAS1</i> )	4.9e-156	B0511.6	1.1e-166	NP_006764.3 ( <i>DDX18</i> )	0.0	---
CG6418	CG6418	YNL112W ( <i>DBP2</i> )	6.8e-95	C46F11.4	9.2e-171	NP_031398.2 ( <i>DDX42</i> )	0.0	SF3b125 homolog
CG6539	<i>Dhh1</i>	YDL160C ( <i>DHH1</i> )	4.2e-58	C07H6.5 ( <i>cgh-1</i> )	7.5e-58	NP_009135.3 ( <i>DDX20</i> )	7e-68	---
CG6920	<i>mus309</i>	YMR190C ( <i>SGS1</i> )	1.5e-124	T04A11.6 ( <i>him-6</i> )	3.3e-126	NP_000048.1 ( <i>BLM</i> )	1e-162	Bloom syndrome
CG7269	<i>Hel25E</i>	YDL084W ( <i>SUB2</i> )	2.3e-133	C26D10.2a ( <i>hel-1</i> )	3.8e-164	NP_004631.1 ( <i>BAT1</i> )	0.0	HLA-B associated transcript 1
CG7483	CG7483	YDR021W ( <i>FAL1</i> )	1.4e-133	F33D11.10	3e-187	NP_055555.1 ( <i>DDX48</i> )	0.0	---
CG7487	<i>RecQ4</i>	YMR190C ( <i>SGS1</i> )	2e-42	T04A11.6 ( <i>him-6</i> )	3.9e-40	NP_004251.1 ( <i>RECQL4</i> )	1e-169	RecQ protein-like 4
CG7878	CG7878	YNL112W ( <i>DBP2</i> )	5.1e-97	Y54G11A.3	1.4e-102	NP_061135.1 ( <i>DDX43</i> )	1e-159	---
CG7922	CG7922	YIR002C ( <i>MPH1</i> )	7.4e-72	F15B10.2 ( <i>drh-1</i> )	1.9e-14	XP_048128.5	1e-81	KIAA1596
CG7972	CG7972	YER172C ( <i>BRR2</i> )	2.2e-15	Y55B1AL.3	6e-116	NP_598375.1 ( <i>HEL308</i> )	0.0	DNA helicase HEL308
CG8019	<i>hay</i>	YIL143C ( <i>SSL2</i> )	2e-206	Y66D12A.15	2e-247	NP_000113.1 ( <i>ERCC3</i> )	0.0	excision repair cross-complementing rodent repair deficiency, complementation group 3 (xeroderma pigmentosum group B complementing), TFIIH, RAD25, XPB

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CG8103	<i>Mi-2</i>	YER164W ( <i>CHD1</i> )	2.3e-137	F26F12.7 ( <i>let-418</i> )	0.0	NP_001264.1 ( <i>CHD4</i> )	0.0	chromodomain helicase DNA binding protein 4
CG8241	<i>CG8241</i>	YER013W ( <i>PRP22</i> )	1.2e-239	EEED8.5 ( <i>mog-5</i> )	0.0	NP_004932.1 ( <i>DHX8</i> )	0.0	Prp22 Homolog
CG8611	<i>CG8611</i>	YKR024C ( <i>DBP7</i> )	1.3e-67	B0511.6	4.5e-55	NP_073616.6 ( <i>DDX31</i> )	1e-118	---
CG8625	<i>Iswi</i>	YOR304W ( <i>ISW2</i> )	1.2e-241	F37A4.8 ( <i>isw-1</i> )	0.0	NP_003592.2 ( <i>SMARCA5</i> )	0.0	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 5
CG8915	<i>CG8915</i>	YLR419W	5.6e-80	F52B5.3	3.1e-96	NP_065916.1 ( <i>DHX36</i> )	1e-100	---
CG9054	<i>Ddx1</i>	YHR065C ( <i>RRP3</i> )	1.4e-39	Y55F3BR.1	2.3e-173	NP_004930.1 ( <i>DDX1</i> )	0.0	---
CG9075	<i>eIF-4a</i>	YJL138C ( <i>TIF2</i> )	2.2e-128	F57B9.6 ( <i>inf-1</i> )	3e-141	NP_001958.1 ( <i>EIF4A2</i> )	1e-172	eukaryotic translation initiation factor 4A, isoform 2, EIF4A, involved in nonsense mediated decay
CG9143	<i>CG9143</i>	YBR142W ( <i>MAK5</i> )	3.9e-52	F55F8.2a	1.1e-100	NP_065147.1 ( <i>DDX24</i> )	1e-115	---
CG9253	<i>CG9253</i>	YHR065C ( <i>RRP3</i> )	1.4e-110	T26G10.1	1.4e-148	NP_057439.2 ( <i>DDX47</i> )	0.0	---
CG9323	<i>CG9323</i>	YGL120C ( <i>PRP43</i> )	3.4e-76	T07D4.3 ( <i>rha-1</i> )	2.2e-90	NP_065916.1 ( <i>DHX36</i> )	0.0	Prp43 Homolog
CG9594	<i>Chd3</i>	YER164W ( <i>CHD1</i> )	2.2e-121	F26F12.7 ( <i>let-418</i> )	1.9e-235	NP_001264.1 ( <i>CHD4</i> )	0.0	chromodomain helicase DNA binding protein 4
CG9680	<i>Dbp73D</i>	YNR038W ( <i>DBP6</i> )	2.2e-36	R05D11.4	7.2e-31	NP_778236.1 ( <i>DDX51</i> )	2e-87	---
CG9696	<i>dom</i>	YDR334W ( <i>SWR1</i> )	3.1e-212	Y111B2A.23	5.1e-264	NP_006653.1 ( <i>SRCAP</i> )	0.0	Snf2-related CBP activator protein
CG9748	<i>bel</i>	YOR204W ( <i>DED1</i> )	5.2e-147	Y54E10A.9a ( <i>vbh-1</i> )	1.4e-127	NP_001347.2 ( <i>DDX3X</i> )	0.0	---