

	moving		
192968_s_at	ROLler: helically twisted, animals roll when moving	1.10	1.33
193147_at	F01G10.10 /// lipopolysaccharide-binding protein like	1.36	1.26
193258_at	PHarynx-associated GAS (growth arrest protein) related /// locus:phg-1	1.17	1.71
193327_at	F53B1.4 /// thymidine diphosphoglucose 4,6-dehydratase	1.77	2.21
193409_at	LRP X(cross)-hybridizing /// locus:lrx-1	1.35	1.99
193477_s_at	E01G6.1 /// pancreatic trypsin inhibitor (kunitz) protein	1.22	1.44
193601_at	K10H10.6 /// Alcohol/other dehydrogenases, short chain type	1.74	2.41
193677_at	F32D8.7b	1.20	1.14
193686_at	See oma /// locus:moe-3	1.59	1.91
193991_at	F41G3.3 /// calcium channel protein alpha-1 chain isoform (PIR:A41098) (weak)	1.37	2.03
194146_x_at	F49E2.1b	1.08	1.33
194238_x_at	MoLTing defective	1.36	1.39

表 6. ガジュツ抽出物あるいはケルセチンの 24 時間暴露により共通して発現抑制が認められた線虫の遺伝子群

Probe Set ID	Gene Title	ガジュツ (Log2 Ratio)	ケルセチン (Log2 Ratio)
172332_at	T24D8.6 /// status:Partially_confirmed	-4.98	-2.62
172474_x_at	Nematode Specific Peptide family, group B /// locus:nspb-11	-1.03	-1.12
172623_at	status:Partially_confirmed /// Y105C5A.10	-1.99	-1.58
173096_at	K08D12.6 /// status:Confirmed	-1.07	-1.90
173274_s_at	W01F3.2 /// status:Confirmed	-1.05	-1.39
173310_at	status:Confirmed /// Y51F10.7	-1.05	-1.29
173977_at	Deubiquitylating with USP/UBP and OTU domains /// locus:duo-3	-1.00	-1.26
174573_at	potassium channel, KvQLT family	-1.03	-2.05
174971_at	CKA And Striatin Homolog /// locus:cash-1	-1.19	-1.26
175760_at	F56H11.1a	-1.23	-1.40
177032_at	COLlagen /// locus:col-91	-1.12	-1.35
177167_at	status:Partially_confirmed /// Y38C1AA.9	-1.07	-1.07
177445_at	Serpentine Receptor, class G (gamma) /// locus:srg-64	-1.92	-3.77
178430_at	C35C5.9 /// status:Confirmed	-1.05	-1.08
179615_at	Seven TM Receptor /// locus:str-45	-3.72	-2.12
179892_at	K06A5.2 /// status:Confirmed	-1.13	-1.02
179970_at	C27F2.6 /// status:Partially_confirmed	-2.47	-2.99
180627_at	K04F1.9 /// status:Partially_confirmed	-1.48	-1.08
180829_at	F23B2.10 /// status:Partially_confirmed	-1.50	-2.19
182559_at	C01G10.6 /// status:Confirmed	-1.03	-1.09
182684_at	Prion-like-(Q/N-rich)-domain-bearing protein /// locus:pqn-98	-1.01	-2.21
183359_at	F58E2.4 /// status:Partially_confirmed	-1.15	-1.42
184579_at	C04E12.4 /// status:Partially_confirmed	-1.32	-1.69
185021_at	Prion-like-(Q/N-rich)-domain-bearing protein /// R11G11.6 /// locus:pqn-60 /// status:Partially_confirmed	-1.40	-1.10
185385_at	status:Partially_confirmed /// Y38E10A.9	-2.62	-3.05
185425_at	C-type LECTin /// locus:clec-4	-1.02	-1.33
186230_at	Serpentine Receptor, class B (beta) /// locus:srb-1	-4.24	-1.34
186337_at	F43C11.3 /// status:Confirmed	-1.66	-2.12
186528_s_at	F46E10.11 /// status:Confirmed	-1.01	-1.10
187994_at	TiTiN family	-1.18	-1.48
188133_at	PaTched Related family	-1.10	-1.33
188371_at	C08H9.4b	-1.20	-1.11
188622_at	C09G5.5 /// locus:col-80	-1.22	-2.65
188884_at	Seven TM Receptor /// locus:str-116	-1.77	-1.35
190211_at	F13E6.2 /// adenylate kinase like	-1.09	-1.18

190584_at	C09G5.4 /// locus:col-39	-1.31	-2.03
190693_at	UDP-GlucuronosylTransferase /// locus:ugt-19	-1.35	-1.19
191133_at	Serpentine Receptor, class H /// locus:srh-39	-1.46	-3.97
193904_s_at	Overexpression Longevity Determinant /// Overexpression Longevity Determinant /// locus:old-1 /// locus:old-2	-1.23	-1.46
194046_s_at	LEThal /// locus:let-23	-1.12	-1.44

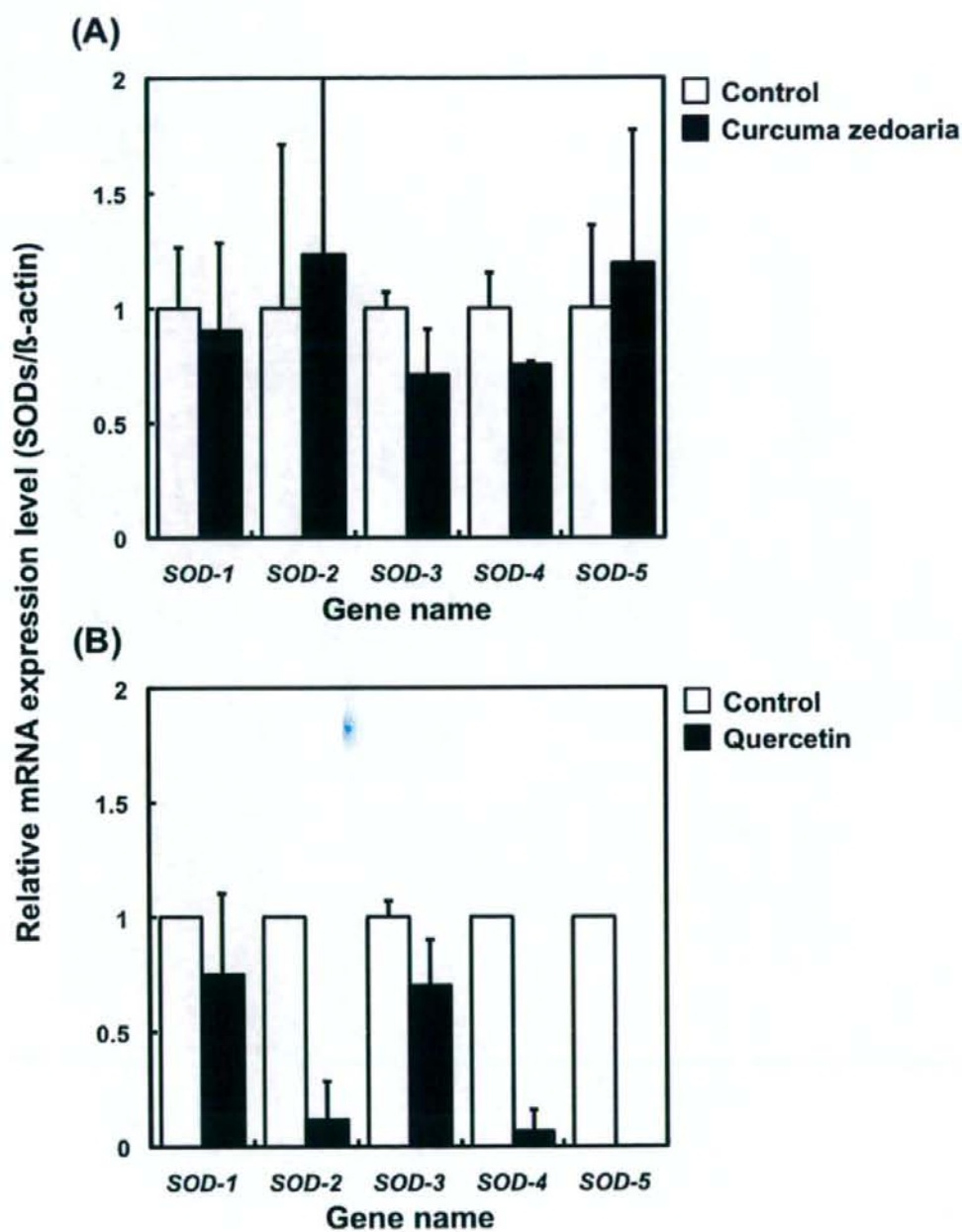
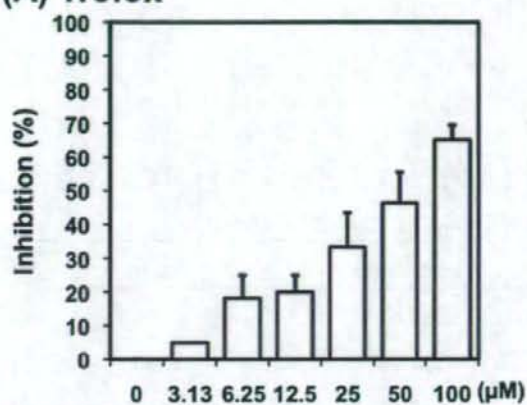
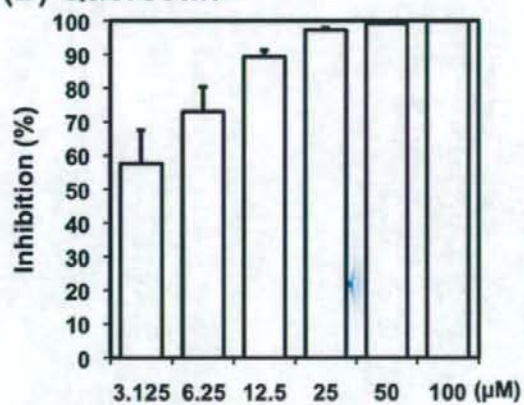


図2. ガジュツ抽出物 (A) あるいはケルセチン (B) を 24 時間暴露した線虫 SOD 遺伝子の発現解析

(A) Trolox



(B) Quercetin



(C) Curcuma zedoaria

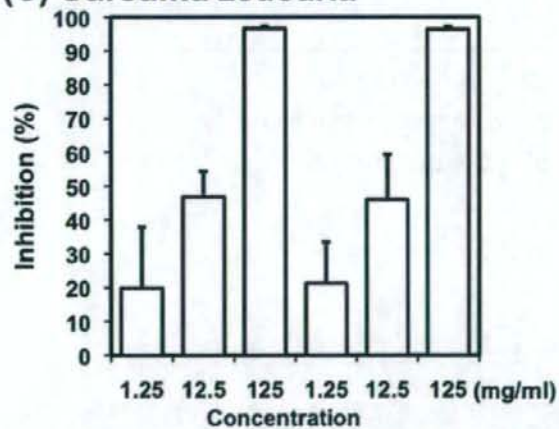


図3. 化学発光法によるトロロックス (A)、ケルセチン (B) およびガジュツ抽出物 (C) の抗酸化能の測定

表 7. ガジュツ抽出物の 24 時間暴露により
発現が誘導した線虫の遺伝子群

Gene name	Ratio
<i>gst-8</i>	2.04
<i>cdr-2</i>	2.06
<i>gst-38</i>	2.11
<i>cyp-33C6</i>	2.14
<i>cyp-33C4</i>	2.22
<i>cdr-1</i>	2.50
<i>cdr-7</i>	2.76
<i>cyp-34A4</i>	2.92
<i>cyp-35A1</i>	3.36
<i>cyp-14A5</i>	3.75
<i>cyp-14A2</i>	4.01
<i>cyp-14A3</i>	4.23
<i>cyp-34A3</i>	4.4
<i>cyp-34A10</i>	5.97

cyp: cytochrome P450

gst: glutathione S-transferase

cdr: cadmium responsive

表 8. ガジュツ抽出物の 24 時間暴露により
発現が抑制した線虫の遺伝子群

Gene name	Ratio
<i>cyp-13B2</i>	0.38
<i>cyp-42A</i>	0.40
<i>cyp-37A1</i>	0.40
<i>pgp-4</i>	0.44
<i>cyp-33C2</i>	0.4
<i>haf-3</i>	0.48
<i>pgp-5</i>	0.48
<i>cyp-33A1</i>	0.48
<i>pgp-14</i>	0.49
<i>pgp-8</i>	0.49
<i>cyp-23A</i>	0.49

cyp: cytochrome P450

pgp: p-glycoprotein related

haf: HAIF transporter

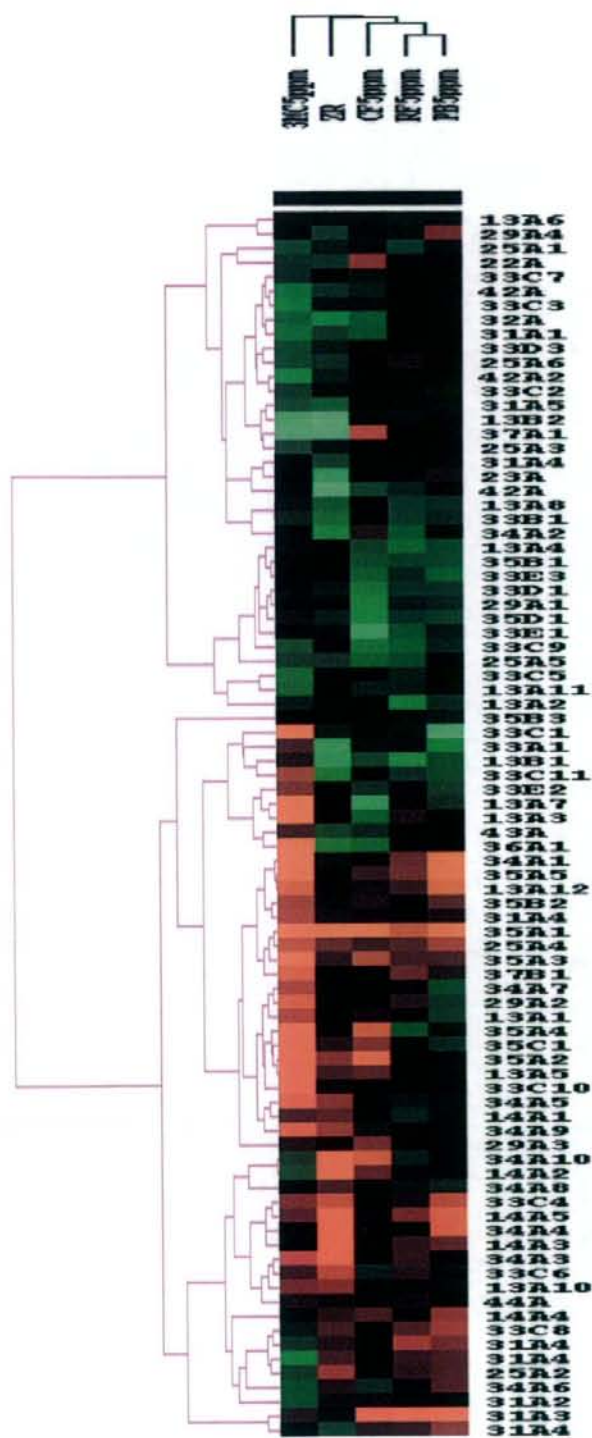


図4. 哺乳類 CYP1A (3メチルコラントレン: 3MC)、CYP2B (フェノバルビタール: PB)、CYP3A (リファンピシン: RF) および CYP4A (クロフィブレート: CF) 誘導剤とガジュツ抽出成分 (ZR) の暴露による線虫遺伝子群の階層的クラスタリング解析