Candidate pheromone receptors of codling moth *Cydia pomonella* respond to pheromones and kairomones

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Supplementary Table S1. Additional list of compounds tested on CpomOrco+ORs in HEK293T.

Further compounds tested	MW (g/mol)	Solubility (M)	LogP	CAS	Source
(-)-carvone	150,22	7.80E-03	2.268±0.334	6485-40-1	MBI lab
(-)-α-pinene	136,23	6,50E-05	4.321±0.237	80-56-8	Fluka
(+)-carvone	150,22	7.80E-03	2.268±0.334	2244-16-8	MBI lab
(+)-nootkatone	218,33	2,40E-04	3.765±0.275	4674-50-4	Givaudan
(E)-2-hexenal	98,14	0,09	1.790±0.281	505-57-7	MBI lab
(E)-2-hexenol	100,16	0,14	1.655±0.212	928-95-0	MBI lab
(*Z*)-3-hexenol	100,16	0,14	1.697±0.206	928-96-1	Safc
(*Z*)-3-hexenyl acetate	142,20	0,025	2.400±0.228	3681-71-8	Safc
(Z)-jasmone	164,24	3,90E-03	2.020±0.337	488-10-8	MBI lab
+/-nerolidol	222,37	2,10E-05	4.682±0.295	3790-78-1	Aldrich
+/-phytol	296,53	8,10E-10	8.230±0.255	150-86-7	Aldrich
1-heptanol	116,20	0,029	2.367±0.177	111-70-6	Aldrich
1-indanone	132,16	4,60E-03	1.419±0.329	83-33-0	Aldrich
1-nonanol	144,25	2,70E-03	3.386±0.177	143-08-8	Fluka
1-octanol	130,23	9,00E-03	2.876±0.177	111-87-5	Sigma Aldrich
1-octen-3-ol	128,21	0,018	2.519±0.220	3391-86-4	MBI lab
1-pentanol	88,15	0,24	1.348±0.176	71-41-0	MBI lab
1-pentene-3-ol	86,13	0,46	0.991±0.220	616-25-1	MBI lab
1-tetradecanol	214,39	2,70E-06	5.933±0.178	112-72-1	Fluka
2-butanone, 4-(4-hydroxyphenyl)- (raspberry ketone)	164,20	0,031	1.309±0.212	5471-51-2	Givaudan
2-propen-1-one, 1-(2-furanyl)-3-(4-methoxyphenyl)-, (2*E*)- (PK analogue 16)	228,24	5,10E-04	2.752±0.338	137444-58-7P	Gift from Dr. Gigliola Borgonovo
2(3H)-furanone, 5-butyldihydro-4-methyl- (whiskey lactone)	156,22	0,011	1.968±0.280	39212-23-2	MBI lab
2,5 dimethyl pyrazine	108,14	6,02	0.687±0.315	123-32-0	MBI lab
2-butyl acetate	116,16	0,081	1.648±0.212	105-46-4	MBI lab
2-ethylfuran	96,13	0,029	2.300±0.241	3208-16-0	MBI lab
2H-pyran, tetrahydro-4-methyl-2-(2-methyl-1-propen-1-yl)-, (2R,4R)- (trans-rose oxide)	154,25	7,40E-03	3.186±0.265	5258-11-7	Givaudan
2H-pyran, tetrahydro-4-methyl-2-(2-methyl-1-propen-1-yl)-, (2S,4R)- (cis-rose oxide)	154,25	7,40E-03	3.186±0.265	3033-23-6	Givaudan
2-heptanone	114,19	0,044	1.996±0.193	110-43-0	MBI lab
2-hexylpyridine	163,26	0,045	3.766±0.188	1129-69-7	MBI lab
2-isobutyl-3-methoxypyrazine	166,22	0,05	2.547±0.377	24683-00-9	MBI lab
2-isobutylthiazole	141,23	0,058	1.715±0.222	18640-74-9	MBI lab
2-methyl-1-butanol	88,15	0,34	1.192±0.187	137-32-6	MBI lab
2-methylbutyl acetate	130,18	0,034	2.158±0.212	624-41-9	MBI lab

2-methylbutyraldehyde	86,13	0,086	1.267±0.227	96-17-3	MBI lab
2-octanone	128,21	0,018	2.506±0.193	111-13-7	MBI lab
2-phenylethanol	122,16	0,16	1.504±0.186	60-12-8	MBI lab
2-propen-1-one, 3-(4-chlorophenyl)-1-(2-furanyl)-, (2*E*)- (PK analogue 18)	232,66	1,20E-04	3.482±0.339	111042-59-2P	Gift from Dr. Gigliola Borgonovo
3-Isothiocyanato-1-propene (Mustard oil)	99,15	3,23E-03	1.9±0.1	55-06-7	Aldrich
3-methyl-1-butanol	88,15	0,34	1.192±0.187	123-51-3	MBI lab
3-methyl-1-pentanol	102,17	0,12	1.702±0.188	589-35-5	MBI lab
3-methyl-2-butenal	84,12	0,31	1.190±0.316	107-86-8	MBI lab
3-octanone	128,21	0,018	2.506±0.193	106-68-3	MBI lab
3-pentanone	86,13	0,26	0.977±0.192	96-22-0	MBI lab
4-ethyl guaiacol (4-ethyl-2-methoxyphenol)	152,19	0,014	2.434±0.224	2785-89-9	Givaudan
4-isopropyl phenol	136,19	0,015	2.986±0.200	99-89-8	Givaudan
4-*tert*-butyl cyclohexanol	156,27	0,01	3.092±0.213	98-52-2	Givaudan
4-tert-butyl cyclohexanone	154,25	5.70E-03	2.630±0.264	98-53-3	Givaudan
4-tert-butyl phenol	150,22	6,30E-03	3.397±0.214	98-54-4	Givaudan
4-vinyl guaiacol (2-methoxy-4-vinylphenol)	150,17	0,015	2.573±0.249	7786-61-0	Givaudan
6-methyl-5-hepten-2-ol	128,21	0,041	2.057±0.236	1569-60-4	MBI lab
6-methyl-5-hepten-2-one	126,20	0.052	1.947±0.238	110-93-0	MBI lab
acetic acid	60,05	3,28	-0.322±0.184	64-19-7	Sigma Aldrich
acetophenone	120,15	0,02	1.674±0.217	98-86-2	Fluka
acetophenone	120,15	0,02	1.674±0.217	98-86-2	MBI lab
acetyl eugenol	206,24	1.40E-03	2.710±0.240	93-28-7	Givaudan
amylbutyrate	158,24	5,40E-03	3.333±0.205	540-18-1	MBI lab
anisole b-cyclocitral	108,14	0,03	2.170±0.203	100-66-3	MBI lab
b-cyclocitral	152,23	6,50E-03	3.100±0.319	432-25-7	Safc
benzaldehyde	106,12	0,02	1.452±0.242	100-52-7	Sigma Aldrich
benzoic acid	122,12	0,046	1.559±0.206	65-85-0	MBI lab
benzothiazole	135,19	0,27	1.899±0.297	95-16-9	MBI lab
benzyl acetate	150,17	0,017	1.998±0.224	140-11-4	MBI lab
benzyl alcohol	108,14	0,043	1.055±0.206	100-51-6	Aldrich
benzyl methyl ether	122,16	0,05	1.843±0.239	538-86-3	Aldrich
b-ionone	192,30	1.20E-3	3.589±0.275	79-77-6	MBI lab
bourgeonal	190,28	4,50E-04	3.486±0.245	18127-01-0	MBI lab
butanol	74,12	0,65	0.839±0.176	71-36-3	MBI lab
butyl acetate	116,16	0,073	1.804±0.205	123-86-4	MBI lab
butyl butanoate	144,21	0,013	2.823±0.205	109-21-7	Aldrich
camphor	152,23	6,90E-03	2.089±0.300	464-49-3	MBI lab
carvacrol	150,22	6,40E-03	3.162±0.205	499-75-2	Aldrich
cineole (1,8-) eucalyptol	154,25	5,90E-03	2.795±0.267	470-82-6	MBI lab
cineole 1,4-	154,25	4,40E-03	2.496±0.266	470-67-7	MBI lab
cinnamaldehyde	132,16	0,023	1.900±0.283	14371-10-9	MBI lab
cis-2-penten-1-ol	86,13	0,4	1.146±0.212	1576-95-0	MBI lab
citral	152,23	0,011	3.127±0.359	5392-40-5	MBI lab
citronellal	154,25	2,90E-03	3.297±0.259	106-23-0	MBI lab
citronellol	156,27	3,00E-03	3.239±0.235	106-22-9	MBI lab

cyclodecanone	154,25	0,013	2.929±0.252	1502-06-3	MBI lab
cycloheptanecarbaldehyde	126,20	0,012	2.394±0.225	4277-29-6	MBI lab
cyclohexanone	98,14	0.15	0.821±0.251	108-94-1	MBI lab
cyclopentanecarboxaldehyde	98,14	0,041	1.339±0.225	872-53-7	MBI lab
d-decalactone	170,25	5.60E-03	2.469±0.278	705-86-2	MBI lab
decanal	156,27	9,80E-04	3.970±0.223	112-31-2	Sigma
dihydro eugenol (2-methoxy-4-propylphenol)	166,22	6,00E-03	2.943±0.224	2785-87-7	Givaudan
4-Allylanisole (estragol)	148,20	4,30E-03	3.088±0.223	140-67-0	Aldrich
ethyl vanillin	166,17	9,80E-03	1.718±0.272	121-32-4	Givaudan
eugenol	164,20	0,011	2.403±0.236	97-53-0	Aldrich
farnesol	222,37	1,90E-05	4.828±0.309	4602-84-0	Aldrich
fennaldehyde	178,23	3,50E-03	2.023±0.250	5462-06-6	Givaudan
geraniol	154,25	5,90E-03	2.942±0.271	106-24-1	Aldrich
geranylacetone	194,31	2,30E-03	3.834±0.268	3796-70-1	MBI lab
hedione	226,31	1,80E-03	2.653±0.272	24851-98-7	MBI lab
helional	192,21	8,10E-04	1.982±0.343	1205-17-0	MBI lab
heliotropin	150,13	4,40E-03	1.050±0.302	120-57-0	Givaudan
heptanal	114,19	0,013	2.442±0.223	111-71-7	MBI lab
heptyl butyrate	186,29	1,00E-03	4.352±0.206	5870-93-9	MBI lab
hexanal	100,16	0,031	1.932±0.223	66-25-1	MBI lab
hexanol	102,17	0,086	1.858±0.177	111-27-3	Acros
hexyl 2-methylbutanoate	186,29	1,10E-03	4.196±0.212	10032-15-2	Safc
hexyl acetate	144,21	0,013	2.823±0.205	142-92-7	MBI lab
hexyl alcohol	102,17	0,086	1.858±0.177	111-27-3	MBI lab
hexyl hexanoate	200,32	4,40E-04	4.861±0.206	6378-65-0	Safc
isoamylacetate	130,18	0,034	2.158±0.212	123-92-2	MBI lab
isobutyl acetate	116,16	0,081	1.648±0.212	110-19-0	MBI lab
isoeugenol	164,20	7,30E-03	3.081±0.248	97-54-1	Givaudan
isomenthone	154,25	5,50E-03	2.755±0.260	491-07-6	MBI lab
isopentyl acetate	130,18	0,034	2.158±0.212	123-92-2	Fluka
isosafrol	162,19	5,90E-04	3.904±0.349	120-58-1	Givaudan
isovaleraldehyde	86,13	0.086	1.267±0.227	590-86-3	MBI lab
isovaleric acid	102,13	0,23	1.051±0.193	503-74-2	MBI lab
isovaleronitrile	83,13	0,11	1.039±0.199	625-28-5	MBI lab
lilial	204,31	2,20E-04	3.839±0.249	80-54-6	MBI lab
limonene, R(+)	136,23	2,50E-05	4.552±0.241	5989-27-5	Aldrich
linalool	154,25	6,70E-03	2.795±0.263	78-70-6	Aldrich
liral	210,31	3,10E-03	2.424±0.256	31906-04-4	MBI lab
menthone (-)	154,25	5,50E-03	2.755±0.260	89-80-5	MBI lab
methional	104,17	0.26	0.436±0.323	3268-49-3	MBI lab
methyl benzoate	136,15	0,02	2.124±0.204	93-58-3	MBI lab
methyl diantilis	182,22	0,039	1.571±0.265	5595-79-9	Givaudan
methyl eugenol	178,23	4,30E-03	2.655±0.243	93-15-2	Givaudan
methyl valerate	116,16	0,073	1.804±0.205	624-24-8	MBI lab
methyl-iso-eugenol	178,23	3.60E-03	3.049±0.239	93-16-3	Givaudan
methyl atratate, evernyl (mousse cristal)	196,20	0,01	2.843±0.336	4707-47-5	Givaudan
n-butyl acetate	116,16	0,073	1.804±0.205	123-86-4	MBI lab
nonanedeioic acid (azelaic acid)	188,22	0,046	1.196±0.197	123-99-9	MBI lab

octanal	128,21	5.40E-03	2.951±0.223	124-13-0	MBI lab
octanoic acid	144,21	0,015	2.735±0.184	124-07-2	MBI lab
orivone 4-(tert.-pentyl)-cyclohexanone	168,28	2.40E-03	3.140±0.264	16587-71-6	Givaudan
p-cymene	134,22	9,90E-05	4.014±0.189	99-87-6	MBI lab
pentanal = valeraldehyde	86,13	0,077	1.423±0.222	110-62-3	MBI lab
pentanol	88,15	0,24	1.348±0.176	71-41-0	MBI lab
pentyl acetate (amyl acetate)	130,18	0.030	2.314±0.205	628-63-7	MBI lab
phenyl acetaldehyde	120,15	0,016	1.760±0.224	122-78-1	Aldrich
phenylacetaldehyde	120,15	0,016	1.760±0.224	122-78-1	MBI lab
phenylethylamine	121,18	0,085	1.435±0.189	64-04-0	MBI lab
prenyl acetate	128,17	0,069	2.017±0.274	1191-16-8	MBI lab
propan-2-ol (isopropanol)	60,10	2,34	0.173±0.187	67-63-0	MBI lab
propyl acetate	102,13	0.18	1.295±0.205	109-60-4	MBI lab
propyl hexanoate	158,24	5,40E-03	3.333±0.205	626-77-7	Safc
pyrazine	80,09	12,5	-0.002±0.232	290-37-9	MBI lab
pyrollidine	71,12	2,15	0.085±0.242	123-75-1	MBI lab
thymol	150,22	5,80E-03	3.252±0.205	89-83-8	Sigma
trans-2-heptenal	112,17	0,037	2.300±0.282	18829-55-5	MBI lab
trans-2-hexenal	98,14	0,09	1.790±0.281	6728-26-3	Aldrich
trans-2-pentenal	84,12	0,22	1.281±0.281	1576-87-0	MBI lab
trans-2-hexen-1-ol	100,16	0,14	1.697±0.206	928-97-2	Sigma Aldrich
triethylamine	101,19	0,31	1.647±0.222	121-44-8	MBI lab
tropional	192,21	8,10E-04	1.982±0.343	1205-17-0	Givaudan
undecanal	170,29	4.20E-04	4.480±0.223	112-44-7	MBI lab
vanillin	152,15	0,024	1.208±0.272	121-33-5	Givaudan
vanillyl acetone (zingerone)	194,23	0,024	1.168±0.237	122-48-5	Givaudan
α-humulene	204,35	1,10E-08	6.592±0.249	6753-98-6	Fluka
γ-decalactone	170,25	4.20E-03	2.451±0.278	706-14-9	MBI lab

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Supplementary Dataset S2. Responses of CpomOR6a expressed in *Drosophila* at1 OSNs to pear ester, codlemone, codlemone acetate and structurally related compounds.

Replicate	Compound	Spike/s
1	Hexane	-2
	Dodecadien-1-yl acetate (12Ac)	4
	(E)-8-dodecadien-1-yl acetate [(E)-8:12Ac]	10
	(Z)-8-dodecadien-1yl acetate [(Z)-8:12Ac]	0
	(E)-10-dodecadien-1-yl acetate [(E)-10:12Ac]	26
	(Z)-10-dodecadien-1-yl acetate [(Z)-10:12Ac]	0
	(E,E)-8,10-dodecadien-1-ol [(E,E)-8,10:12OH]	0
	(Z,Z)-8,10-dodecadien-1yl acetate [(Z,Z)-8,10:12Ac]	14
	(Z,E)-8,10-dodecadien-1yl acetate [(Z,E)-8,10:12Ac]	10
	(E,Z)-8,10-dodecadien-1yl acetate [(E,Z)-8,10:12Ac]	6
	(E,E)-8,10-dodecadien-1yl acetate [(E,E)-8,10:12Ac]	46
	Ethyl-(E,Z)-2,4-decadienoate [(E,Z)-ED]	2
2	Hexane	2
	Dodecadien-1-yl acetate (12Ac)	4
	(E)-8-dodecadien-1-yl acetate [(E)-8:12Ac]	0
	(Z)-8-dodecadien-1yl acetate [(Z)-8:12Ac]	0
	(E)-10-dodecadien-1-yl acetate [(E)-10:12Ac]	26
	(Z)-10-dodecadien-1-yl acetate [(Z)-10:12Ac]	6
	(E,E)-8,10-dodecadien-1-ol [(E,E)-8,10:12OH]	0
	(Z,Z)-8,10-dodecadien-1yl acetate [(Z,Z)-8,10:12Ac]	12
	(Z,E)-8,10-dodecadien-1yl acetate [(Z,E)-8,10:12Ac]	2
	(E,Z)-8,10-dodecadien-1yl acetate [(E,Z)-8,10:12Ac]	10
	(E,E)-8,10-dodecadien-1yl acetate [(E,E)-8,10:12Ac]	50
	Ethyl-(E,Z)-2,4-decadienoate [(E,Z)-ED]	-2
3	Hexane	2
	Dodecadien-1-yl acetate (12Ac)	-2
	(E)-8-dodecadien-1-yl acetate [(E)-8:12Ac]	4
	(Z)-8-dodecadien-1yl acetate [(Z)-8:12Ac]	0
	(E)-10-dodecadien-1-yl acetate [(E)-10:12Ac]	28
	(Z)-10-dodecadien-1-yl acetate [(Z)-10:12Ac]	2
	(E,E)-8,10-dodecadien-1-ol [(E,E)-8,10:12OH]	-4
	(Z,Z)-8,10-dodecadien-1yl acetate [(Z,Z)-8,10:12Ac]	10

	(Z,E)-8,10-dodecadien-1yl acetate [(Z,E)-8,10:12Ac]	-4
	(E,Z)-8,10-dodecadien-1yl acetate [(E,Z)-8,10:12Ac]	16
	(E,E)-8,10-dodecadien-1yl acetate [(E,E)-8,10:12Ac]	44
	Ethyl-(E,Z)-2,4-decadienoate [(E,Z)-ED]	8
4	Hexane	-2
	Dodecadien-1-yl acetate (12Ac)	6
	(E)-8-dodecadien-1-yl acetate [(E)-8:12Ac]	4
	(Z)-8-dodecadien-1yl acetate [(Z)-8:12Ac]	4
	(E)-10-dodecadien-1-yl acetate [(E)-10:12Ac]	60
	(Z)-10-dodecadien-1-yl acetate [(Z)-10:12Ac]	2
	(E,E)-8,10-dodecadien-1-ol [(E,E)-8,10:12OH]	6
	(Z,Z)-8,10-dodecadien-1yl acetate [(Z,Z)-8,10:12Ac]	16
	(Z,E)-8,10-dodecadien-1yl acetate [(Z,E)-8,10:12Ac]	8
	(E,Z)-8,10-dodecadien-1yl acetate [(E,Z)-8,10:12Ac]	6
	(E,E)-8,10-dodecadien-1yl acetate [(E,E)-8,10:12Ac]	54
	Ethyl-(E,Z)-2,4-decadienoate [(E,Z)-ED]	2
5	Hexane	4
	Dodecadien-1-yl acetate (12Ac)	10
	(E)-8-dodecadien-1-yl acetate [(E)-8:12Ac]	12
	(Z)-8-dodecadien-1yl acetate [(Z)-8:12Ac]	-2
	(E)-10-dodecadien-1-yl acetate [(E)-10:12Ac]	34
	(Z)-10-dodecadien-1-yl acetate [(Z)-10:12Ac]	6
	(E,E)-8,10-dodecadien-1-ol [(E,E)-8,10:12OH]	0
	(Z,Z)-8,10-dodecadien-1yl acetate [(Z,Z)-8,10:12Ac]	20
	(Z,E)-8,10-dodecadien-1yl acetate [(Z,E)-8,10:12Ac]	0
	(E,Z)-8,10-dodecadien-1yl acetate [(E,Z)-8,10:12Ac]	8
	(E,E)-8,10-dodecadien-1yl acetate [(E,E)-8,10:12Ac]	80
	Ethyl-(E,Z)-2,4-decadienoate [(E,Z)-ED]	-14
6	Hexane	16
	Dodecadien-1-yl acetate (12Ac)	6
	(E)-8-dodecadien-1-yl acetate [(E)-8:12Ac]	26
	(Z)-8-dodecadien-1yl acetate [(Z)-8:12Ac]	22
	(E)-10-dodecadien-1-yl acetate [(E)-10:12Ac]	36
	(Z)-10-dodecadien-1-yl acetate [(Z)-10:12Ac]	12
	(E,E)-8,10-dodecadien-1-ol [(E,E)-8,10:12OH]	2
	(Z,Z)-8,10-dodecadien-1yl acetate [(Z,Z)-8,10:12Ac]	20
	(Z,E)-8,10-dodecadien-1yl acetate [(Z,E)-8,10:12Ac]	18
	(E,Z)-8,10-dodecadien-1yl acetate [(E,Z)-8,10:12Ac]	24
	(E,E)-8,10-dodecadien-1yl acetate [(E,E)-8,10:12Ac]	46
	Ethyl-(E,Z)-2,4-decadienoate [(E,Z)-ED]	8
	Hexane	8

7	Dodecadien-1-yl acetate (12Ac)	0
	(E)-8-dodecadien-1-yl acetate [(E)-8:12Ac]	30
	(Z)-8-dodecadien-1yl acetate [(Z)-8:12Ac]	32
	(E)-10-dodecadien-1-yl acetate [(E)-10:12Ac]	50
	(Z)-10-dodecadien-1-yl acetate [(Z)-10:12Ac]	14
	(E,E)-8,10-dodecadien-1-ol [(E,E)-8,10:12OH]	14
	(Z,Z)-8,10-dodecadien-1yl acetate [(Z,Z)-8,10:12Ac]	10
	(Z,E)-8,10-dodecadien-1yl acetate [(Z,E)-8,10:12Ac]	26
	(E,Z)-8,10-dodecadien-1yl acetate [(E,Z)-8,10:12Ac]	16
	(E,E)-8,10-dodecadien-1yl acetate [(E,E)-8,10:12Ac]	82
	Ethyl-(E,Z)-2,4-decadienoate [(E,Z)-ED]	4
8	Hexane	16
	Dodecadien-1-yl acetate (12Ac)	12
	(E)-8-dodecadien-1-yl acetate [(E)-8:12Ac]	30
	(Z)-8-dodecadien-1yl acetate [(Z)-8:12Ac]	6
	(E)-10-dodecadien-1-yl acetate [(E)-10:12Ac]	66
	(Z)-10-dodecadien-1-yl acetate [(Z)-10:12Ac]	4
	(E,E)-8,10-dodecadien-1-ol [(E,E)-8,10:12OH]	0
	(Z,Z)-8,10-dodecadien-1yl acetate [(Z,Z)-8,10:12Ac]	32
	(Z,E)-8,10-dodecadien-1yl acetate [(Z,E)-8,10:12Ac]	40
	(E,Z)-8,10-dodecadien-1yl acetate [(E,Z)-8,10:12Ac]	34
	(E,E)-8,10-dodecadien-1yl acetate [(E,E)-8,10:12Ac]	62
	Ethyl-(E,Z)-2,4-decadienoate [(E,Z)-ED]	-2
9	Hexane	4
	Dodecadien-1-yl acetate (12Ac)	-12
	(E)-8-dodecadien-1-yl acetate [(E)-8:12Ac]	10
	(Z)-8-dodecadien-1yl acetate [(Z)-8:12Ac]	-8
	(E)-10-dodecadien-1-yl acetate [(E)-10:12Ac]	26
	(Z)-10-dodecadien-1-yl acetate [(Z)-10:12Ac]	4
	(E,E)-8,10-dodecadien-1-ol [(E,E)-8,10:12OH]	2
	(Z,Z)-8,10-dodecadien-1yl acetate [(Z,Z)-8,10:12Ac]	12
	(Z,E)-8,10-dodecadien-1yl acetate [(Z,E)-8,10:12Ac]	10
	(E,Z)-8,10-dodecadien-1yl acetate [(E,Z)-8,10:12Ac]	2
	(E,E)-8,10-dodecadien-1yl acetate [(E,E)-8,10:12Ac]	58
	Ethyl-(E,Z)-2,4-decadienoate [(E,Z)-ED]	14

Candidate pheromone receptors of codling moth *Cydia pomonella* respond to pheromones and kairomones

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Supplementary Dataset S3. Responses of CpomOR1 expressed in *Drosophila* at1 OSNs to pheromones, synergists and their combinations.

Replicate	Compound(s)	Spikes/s
1	Blank	4
	Hexane	-4
	(E8,E10)-12:OH	6
	(E8,Z10)-12:OH	-2
	(Z8,E10)-12:OH	0
	(Z8,Z10)-12:OH	-2
	(E8,E10)-12:Ac	2
	(E8)-12:OH	-2
	(E9)-12:OH	-4
	(E10)-12:OH	-2
	12:OH	-2
	(E)-β-Farnesene	0
	Butyl hexanoate	4
	Ethyl-(E2,Z4)-decadienoate	-2
	(Z9,E12)-14:Ac	2
	4,8-Dimethyl-1,(E)-3,7-nonatriene	2
	3,7-Dimethyl-1,(E)-3,6-octatriene	2
	(E8,E10)-12:OH +(E)-β-Farnesene	-2
	(E8,E10)-12:OH + Butyl hexanoate	2
	(E8,E10)-12:OH +Ethyl-(E2,Z4)-decadienoate	6
	(E8,E10)-12:OH +(Z9,E12)- 14:Ac	2
	(E8,E10)-12:OH + 4,8-Dimethyl-1,(E)-3,7-nonatriene	4
	(E8,E10)-12:OH + 3,7-Dimethyl-1,(E)-3,6-octatriene	2
	(E8,E10)-12:OH (100 ng)	-4
2	Blank	-6
	Hexane	0
	(E8,E10)-12:OH	2
	(E8,Z10)-12:OH	-2
	(Z8,E10)-12:OH	0
	(Z8,Z10)-12:OH	0
	(E8,E10)-12:Ac	4
	(E8)-12:OH	4
	(E9)-12:OH	0
	(E10)-12:OH	-2
	12:OH	4

	(E)-β-Farnesene	4
	Butyl hexanoate	-4
	Ethyl-(E2,Z4)-decadienoate	2
	(Z9,E12)-14:Ac	-4
	4,8-Dimethyl-1,(E)-3,7-nonatriene	-6
	3,7-Dimethyl-1,(E)-3,6-octatriene	8
	(E8,E10)-12:OH +(E)-β-Farnesene	2
	(E8,E10)-12:OH + Butyl hexanoate	-2
	(E8,E10)-12:OH +Ethyl-(E2,Z4)-decadienoate	-2
	(E8,E10)-12:OH +(Z9,E12)- 14:Ac	-4
	(E8,E10)-12:OH + 4,8-Dimethyl-1,(E)-3,7-nonatriene	-2
	(E8,E10)-12:OH + 3,7-Dimethyl-1,(E)-3,6-octatriene	2
	(E8,E10)-12:OH (100 ng)	2
3	Blank	-2
	Hexane	0
	(E8,E10)-12:OH	0
	(E8,Z10)-12:OH	0
	(Z8,E10)-12:OH	6
	(Z8,Z10)-12:OH	0
	(E8,E10)-12:Ac	4
	(E8)-12:OH	0
	(E9)-12:OH	2
	(E10)-12:OH	0
	12:OH	2
	(E)-β-Farnesene	2
	Butyl hexanoate	2
	Ethyl-(E2,Z4)-decadienoate	2
	(Z9,E12)-14:Ac	2
	4,8-Dimethyl-1,(E)-3,7-nonatriene	2
	3,7-Dimethyl-1,(E)-3,6-octatriene	0
	(E8,E10)-12:OH +(E)-β-Farnesene	0
	(E8,E10)-12:OH + Butyl hexanoate	-6
	(E8,E10)-12:OH +Ethyl-(E2,Z4)-decadienoate	-2
	(E8,E10)-12:OH +(Z9,E12)- 14:Ac	-4
	(E8,E10)-12:OH + 4,8-Dimethyl-1,(E)-3,7-nonatriene	0
	(E8,E10)-12:OH + 3,7-Dimethyl-1,(E)-3,6-octatriene	-2
	(E8,E10)-12:OH (100 ng)	2
4	Blank	-4
	Hexane	-8
	(E8,E10)-12:OH	-12
	(E8,Z10)-12:OH	-2
	(Z8,E10)-12:OH	8
	(Z8,Z10)-12:OH	4
	(E8,E10)-12:Ac	2

	(E8)-12:OH	0
	(E9)-12:OH	4
	(E10)-12:OH	-4
	12:OH	-2
	(E)-β-Farnesene	0
	Butyl hexanoate	0
	Ethyl-(E2,Z4)-decadienoate	2
	(Z9,E12)-14:Ac	-10
	4,8-Dimethyl-1,(E)-3,7-nonatriene	4
	3,7-Dimethyl-1,(E)-3,6-octatriene	2
	(E8,E10)-12:OH +(E)-β-Farnesene	-6
	(E8,E10)-12:OH + Butyl hexanoate	2
	(E8,E10)-12:OH +Ethyl-(E2,Z4)-decadienoate	-8
	(E8,E10)-12:OH +(Z9,E12)- 14:Ac	8
	(E8,E10)-12:OH + 4,8-Dimethyl-1,(E)-3,7-nonatriene	0
	(E8,E10)-12:OH + 3,7-Dimethyl-1,(E)-3,6-octatriene	-2
	(E8,E10)-12:OH (100 ng)	-8
5	Blank	6
	Hexane	-4
	(E8,E10)-12:OH	0
	(E8,Z10)-12:OH	-2
	(Z8,E10)-12:OH	-4
	(Z8,Z10)-12:OH	12
	(E8,E10)-12:Ac	4
	(E8)-12:OH	2
	(E9)-12:OH	-2
	(E10)-12:OH	2
	12:OH	2
	(E)-β-Farnesene	2
	Butyl hexanoate	-8
	Ethyl-(E2,Z4)-decadienoate	10
	(Z9,E12)-14:Ac	0
	4,8-Dimethyl-1,(E)-3,7-nonatriene	-8
	3,7-Dimethyl-1,(E)-3,6-octatriene	4
	(E8,E10)-12:OH +(E)-β-Farnesene	4
	(E8,E10)-12:OH + Butyl hexanoate	6
	(E8,E10)-12:OH +Ethyl-(E2,Z4)-decadienoate	-12
	(E8,E10)-12:OH +(Z9,E12)- 14:Ac	0
	(E8,E10)-12:OH + 4,8-Dimethyl-1,(E)-3,7-nonatriene	4
	(E8,E10)-12:OH + 3,7-Dimethyl-1,(E)-3,6-octatriene	10
	(E8,E10)-12:OH (100 ng)	-4

Candidate pheromone receptors of codling moth Cydia pomonella respond to pheromones and kairomones

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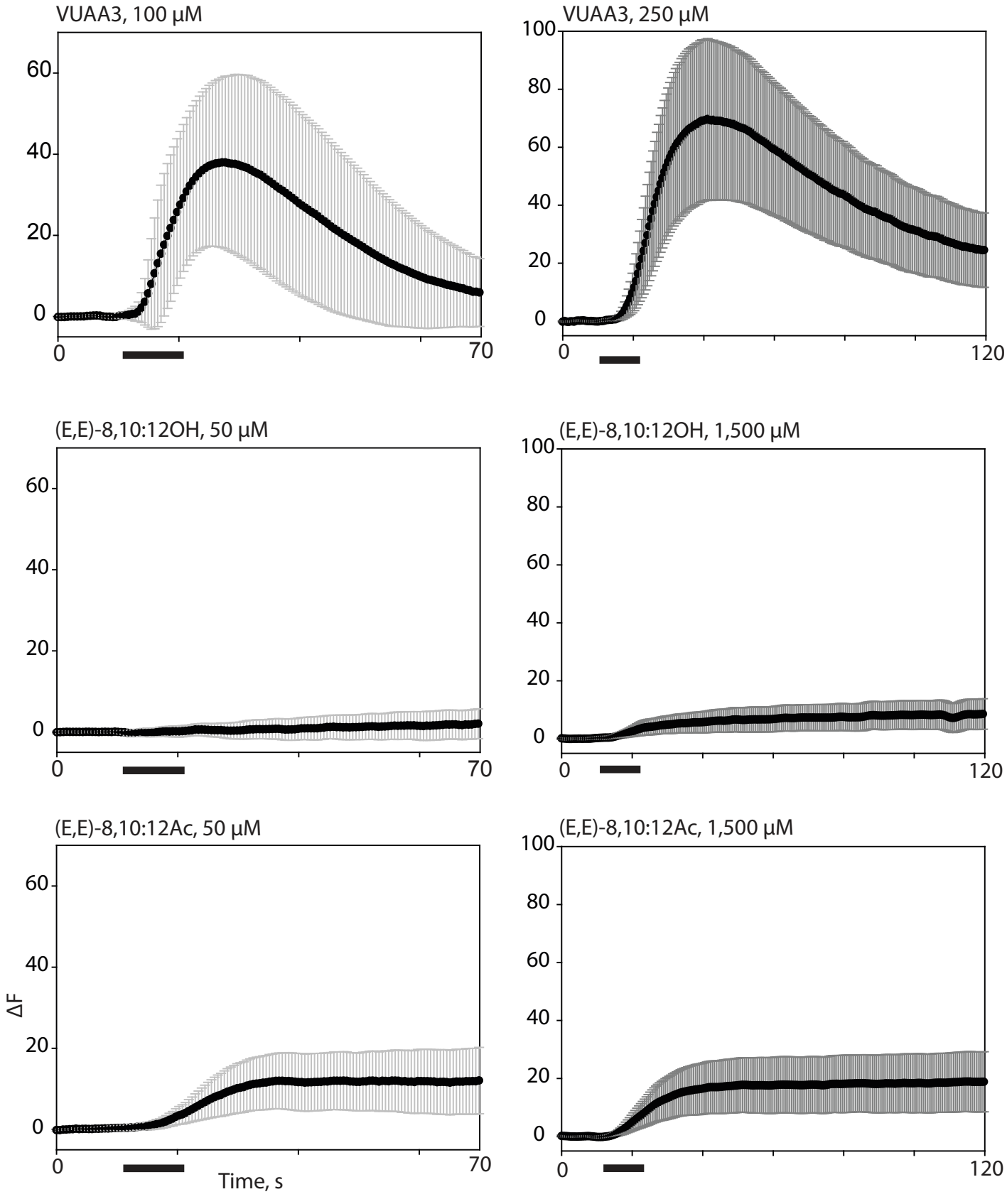
Supplementary Figure S4. Response of CpomOrco+OR6a transfected HEK293T to (E,E)-codlemone acetate [(E,E)-8,10:12Ac] and codlemone [(E,E)-8,10:12OH]. Left: comparison between amplitudes of the calcium responses (mean of the maximum response ± SEM) to VUAA3 100 µM (37.96 ± 20.98, dF; above), codlemone 50 µM (0.38 ± 1.84, dF; middle) and codlemone acetate 50 µM (12.04 ± 8.17, dF; below); n = 70. Right: comparison between amplitudes of the calcium responses (mean of the maximum response ± SEM) to VUAA3 250 µM (69.71 ± 27.29, dF; above), codlemone 1500 µM (5.7 ± 3.64, dF; middle) and codlemone acetate 1500 µM (18.91 ± 10.31, dF; below); n = 68.



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Supplementary Figure S5. Spike trains from Single Sensillum Recordings of Drosophila at1 OSNs expressing CpomOR6a when stimulated with Hexane and 10 µg doses of (E,Z)-8,10:12Ac, (Z,Z)-8,10:12Ac, (E)-10:12Ac and (E,E)-8,10:12Ac. Black bar: stimulus (0.5 s).