Figure S1  

C. elegans avoids MeSa as a volatile and npr-2 is not required for social feeding.  

(A) C. elegans exhibits a similar avoidance response to MeSa spotted on either the agar or the petri dish lid. Error bars: standard errors.  

(B) npr-2(ok419) mutants do not exhibit social feeding. The behavior was scored as described (DE BONO and BARGMANN 1998; MACOSKO et al. 2009). Statistics: different from wild type. Error bars: standard errors. *: p<0.01 (Student’s t-test).  

(C) List of genes important for the MeSa avoidance response. Genes with strong effects are in red. Genes with moderate effects are in blue.
Figure S2  

npr-2 is expressed in sensory neurons and interneurons.

(A) An npr-2p::GFP transgenic animal in low (i, ii) and high magnifications (iii- vi) showing GFP-positive neurons (green) and Dil-labeled neurons (light red). ASH is labeled by GFP and Dil. The highly branched dendrites of PVD and FLP sensory neurons are shown in v and vi. A: anterior; P: posterior; D: dorsal; V: ventral.

(B) Penetrance of npr-2p::GFP transgene expression in neurons. 16 animals were scored. O: GFP-positive; X: GFP-negative.

<table>
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<td>75%</td>
<td>62.5%</td>
<td>100%</td>
<td>75%</td>
<td>93.75%</td>
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Figure S2  
npr-2 is expressed in sensory neurons and interneurons.

(A) An npr-2p::GFP transgenic animal in low (i, ii) and high magnifications (iii- vi) showing GFP-positive neurons (green) and Dil-labeled neurons (light red). ASH is labeled by GFP and Dil. The highly branched dendrites of PVD and FLP sensory neurons are shown in v and vi. A: anterior; P: posterior; D: dorsal; V: ventral.

(B) Penetrance of npr-2p::GFP transgene expression in neurons. 16 animals were scored. O: GFP-positive; X: GFP-negative.
Table S1  List of promoters for npr-1 transgenes.

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<thead>
<tr>
<th>Promoters</th>
<th>npr-1-expressing neurons</th>
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<tr>
<td>npr-1 (MACOSKO et al. 2009)</td>
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<td>flp-8 (MACOSKO et al. 2009)</td>
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<td>OLQ</td>
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<td>sra-6 (TROEMEL et al. 1995)</td>
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<td>lin-12 (CHAO et al. 2005)</td>
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Table S2  List of promoters for *flp-18* transgenes.

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<td><em>nmr-1</em> (BROCKIE et al. 2001)</td>
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Table S3  List of promoters for npr-2 transgenes.

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<td>PVQ</td>
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Table S4  List of transgene promoters and PCR primers.

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Strains

*C. elegans* strains were grown at 20°C unless otherwise indicated. N2 (Bristol) was the reference wild type strain (Brenner 1974). Strains used in this study include:

- MT2426 *goa-1(n1134)* I (Segalat et al. 1995)
- PR671 *tax-2(p671)* I (Coburn and Bargmann 1996)
- CB1034 *che-1(e1034) fer-1(hc1)* I (Lewis and Hodgkin 1977; Uchida et al. 2003)
- RB770 *npr-11(ok594)* I (Chalasani et al. 2010; Cohen et al. 2009; Styer et al. 2008)
- RB1780 *rgs-3(ok2288)* II (this study)
- DR476 *daf-22(m130)* II (Golden and Riddle 1985)
- MT5300 *odr-4(n2144)* III (Dwyer et al. 1998)
- PR678 *tax-4(p678)* III (Komatsu et al. 1996)
- CB1372 *daf-7(e1372)* III (Schackwitz et al. 1996)
- BW506 *ceh-10(ct78)* III (Manser and Wood 1990)
- BX24 *fat-1(wa9)* IV (Watts and Browse 2002)
- BX30 *fat-3(wa22)* IV (Watts and Browse 2002)
- BX17 *fat-4(wa14)* IV (Watts and Browse 2002)
- CX2386 *odr-8(ky31)* IV (Dwyer et al. 1998)
- VM396 *ocr-2(ak47)* IV (Tobin et al. 2002)
- MT1073 *egl-4(n478)* IV (Trent et al. 1983)
- PR675 *tax-6(p675)* IV (Kuhara et al. 2002)
- XA3702 *npr-2(ok419)* IV (Cohen et al. 2009)
- CSM415 *npr-2(ok419)* IV (Cohen et al. 2009) (backcrossed 5 times in this study)
- CX10 *osm-9(ky10)* IV (Colbert and Bargmann 1995)
- CSM111 *npr-3(tm1583)* IV (Cohen et al. 2009) (backcrossed 5 times in this study)
- MT4810 *odr-3(n2046)* V (Royaie et al. 1998)
- CX2205 *odr-3(n2150)* V (Royaie et al. 1998)
- DR47 *daf-11(m47)* V (Thomas et al. 1993)
- CB3330 *che-11(e1810)* V (Perkins et al. 1986)
- PR673 *daf-21(p673)* V (Birnby et al. 2000)
- CSM123 *flp-21(ok889)* V (this study, backcrossed 5 times)
- IK105 *pkc-1(nj1)* V (Okochi et al. 2005)
- CX14394 *npr-5(ok1583)* X (Flavell et al. 2013)
CB1033 che-2(e1033) X (LEWIS and HODGKIN 1977)
MT4583 odr-1(n1936) X (L’ETOILE and BARGMANN 2000)
NL792 gpc-1(pk298) X (JANSEN et al. 2002)
CX4 odr-7(ky4) X (SENGUPTA et al. 1994)
PY1479 kin-29(oy38) X (LANJUN and SENGUPTA 2002)
CSM125 flp-18(gk3063) X (this study, backcrossed 5 times)
CX4148 npr-1(ky13) X (DE BONO and BARGMANN 1998)
RB1330 npr-1(ok1447) X (STAWICKI et al. 2013)
CX3937 lim-4(ky403) X (SAGASTI et al. 1999)
FK311 ceh-36(ks86) X (KOGA and OHSHIMA 2004)
FK134 ttx-3(ks5) X (HOBERT et al. 1997)
RB761 npr-7(ok527) X (COHEN et al. 2009; STYER et al. 2008)
IC683 npr-9(tm1652) X (BENDENA et al. 2008)
RB1365 npr-16(ok1541) X (STYER et al. 2008)
CB4856 (Hawaiian) (WICKS et al. 2001)

Transgenic animals used in this study include:

CSM320-CSM322 npr-1(ky13) X; macEx205-207[npr-1p::npr-1::GFP, myo-3p::GFP]
CSM352-CSM354 npr-1(ky13) X; macEx234-236[ncs-1p::npr-1::GFP, myo-3p::GFP]
CSM453-CSM455 npr-1(ky13) X; macEx291-293[flp-21p::npr-1::GFP, myo-3p::GFP]
CSM456-CSM458 npr-1(ky13) X; macEx294-296[flp-8p::npr-1::GFP, myo-3p::GFP]
CSM190 npr-1(ky13) X; macEx136[myo-3p::GFP]
CSM211 npr-1(ky13) X; macEx153[myo-3p::GFP]
CSM319 npr-1(ky13) X; macEx204[myo-3p::GFP]
CSM38 npr-1(ky13) X; macEx83[npr-1p::GFP, myo-3p::GFP]
CSM241 npr-1(ky13) X; macEx178[npr-1p::GFP, myo-3p::GFP]
CSM287 npr-1(ky13) X; macEx201[npr-1p::GFP, myo-3p::GFP]
CSM349-CSM351 npr-1(ky13) X; macEx231-233[gcy-32p::npr-1::GFP, myo-3p::GFP]
CSM468-CSM470 npr-1(ky13) X; macEx306-308[ocr-2p::npr-1::GFP, myo-3p::GFP]
CSM471-CSM473 npr-1(ky13) X; macEx309-311[ocr-4p::npr-1::GFP, myo-3p::GFP]
CSM474-CSM476 npr-1(ky13) X; macEx312-314[odr-2p::npr-1::GFP, myo-3p::GFP]
CSM480-CSM482 npr-1(ky13) X; macEx318-320[lin-12p::npr-1::GFP, sra-6p::npr-1::GFP, flp-12p::npr-1::GFP, myo-3p::GFP]
CSM332-CSM334 npr-2(ok419) IV; macEx217-219[npr-2p::npr-2::GFP, myo-3p::GFP]
References


WAY, J. C., and M. CHALFIE, 1989 The *mec-3* gene of *Caenorhabditis elegans* requires its own product for maintained expression and is expressed in three neuronal cell types. Genes Dev **3**: 1823-1833.