Electronic Supplementary Material (ESI) for Toxicology Research.
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Supporting Information:

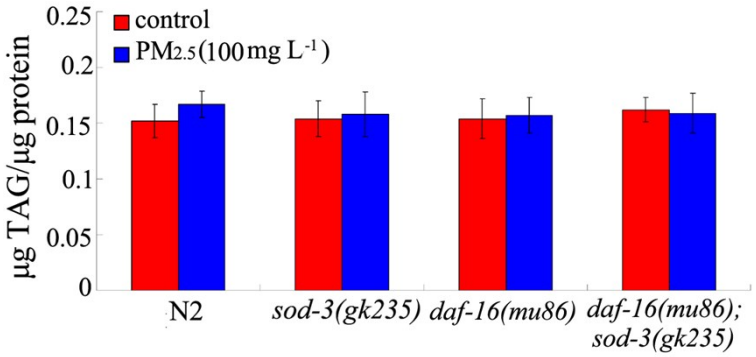

Fig. S1 Comparison of triglyceride amount in wild-type and mutant nematodes exposed to $PM_{2.5}$. Exposure was performed from L1-larvae to adult day-1. Bars represent means ± SEM.

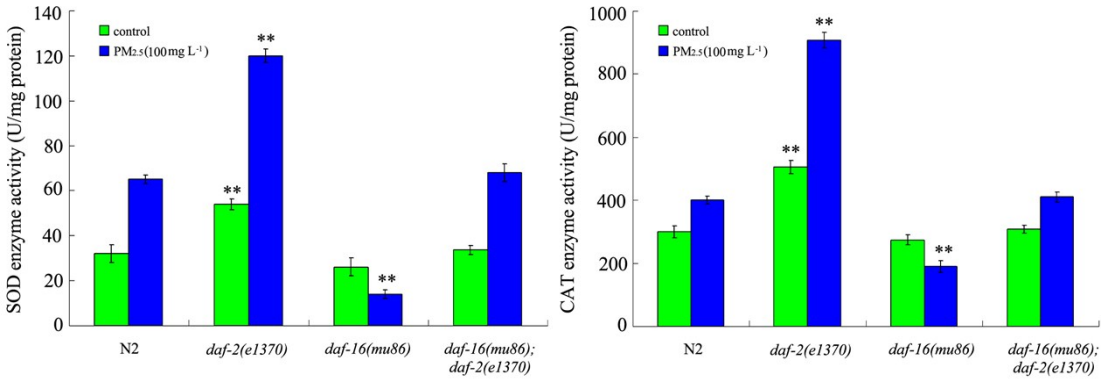

Fig. S2 Comparison of SOD or CAT activity in wild-type and mutant nematodes exposed to $PM_{2.5}$. Exposure was performed from L1-larvae to adult day-1. Bars represent means ± SEM. $^{**}P < 0.01$ *vs* N2.

Table S1. Primers used for quantitative real-time polymerase chain reaction (PCR)

Gene	Forward primer	Reverse primer
tba-1	TCAACACTGCCATCGCCGCC	TCCAAGCGAGACCAGGCTTCAG
gem-4	CACGGTGGTCAACAGTAT	TTGTATTTGGCACCTTTC
mtm-6	AAAAGGGACGCTAACAGC	ATTCTCAAACGCAAGCAG
nhx-2	GGAGCAGAATGTGAAGAA	GTGGCGGAAGTAGATAAA
opt-2	ACTGGTATTTATGGGAGGTT	AAGAACACGGAGTAGGGA
pho-1	ACGGACATGATGTAGGAG	ATTAGAAGTGCGGAGAAG
pkc-3	CGTCTCCGACATCATTAG	CAACTCGGCTTCTTGACT
par-3	AAGCGTAACTGTCAACCA	CCGTCTATAACATCCTCC
par-6	ATTCTGCGTCTGGTGTCT	TTCCCTTCCATCGTTTAT
pgp-1	AATGTCCGATTCGCTTAC	CTCAGGGTTCAACGTCTT
pgp-3	GGACTTCCTGACGGTTAC	TTTGATGGGTTCCTTCTT
vha-6	ATGGAGGCAAACTTAGAG	TTCCGAGATTGACATAGC
gtl-1	CTGCTCACCACGCACAAT	AACTCCTTCATCCAACCC
erm-1	TCCACGACTCCGTATCAA	TCCTGCTCGGCAATCTTA
eps-8	ACGCAGTGACGGTAGAAG	AGCGGATACACGGATACA
act-5	GGGAGTGATGGTCGGTAT	CGGTAAGGAGAACTGGGT
ifb-2	TCAAGGCTGAATACGACA	TCCAAAGCAGAGTTACGG
dlg-1	TTGAAACGGCGTAAAGAT	CGTGATGAACTGGTGGTG
ajm-1	GTCAATCAGTTCGTCCCG	ACTCGTCCGATGGTGTCT
egl-8	GCTCGATGGCTTCAAGTA	TGAATGCTATCCCTCTGC
let-413	TTGCGTCCAACAAGTTAC	CACCAAGAAATGCTCCTC
nfm-1	ATTACGGAGGATCTGGTA	TCATCGTCGTGAACTTAT
inx-3	CAGTGGGTGCCTATTGTG	GACCGTATTCGTTCTTGG
abts-4	CTCAGACTACAGGGATGG	GTGCCTGACTCACAAGAC
lin-7	GTTATGGGCGGCAAGGAG	CGTCGGGAGTGTTGGACT
age-1	ATGGAAACCGCCGAGTGT	ATTGGCAGTCGGTTCAGG
daf-2	ATGTGGCGTGAGAATGAA	AGCCGAACACGAACAACA

daf-16	CGTTTCCTTCGGATTTCA	ATTCCTTCCTGGCTTTGC
daf-18	ATCATCATCCGCCGAGTC	ACCGTTGAGTCCTCCATC
pdk-1	TTCAGAGCCGTCAACCAG	GCTCACTTGCTCGGCTTT
akt-1	GGACAACCGTTTCCTGAG	GACGAACTTCTGCCGACT
akt-2	ATCAGCCGTTACCAGAGC	AAGGTTCCTTGACCGAGA
sgk-1	AAGACTGTTGACTGGTGGTG	AGACGAAGTGGCTGGTTG
clk-1	CACATACTGCTGCTTCTCGT	TGAACCAACAGATGAACCTT
ctl-1	CTCCTACACGGACACGCAT	GCATCTCCCTGGCTTTCAT
ctl-2	CGAACAGCTTCAACTATGG	GTGGCTGGGAATGTGGTAT
ctl-3	TTCTCCTACACGGACACGC	GCATCTCCCTGGCTTTCAT
gas-1	CTTGGTCTTTGGCTGTTGA	CTTGGTCTTTGGCTGTTGA
isp-1	GCAGAAAGATGAATGGTCC	CAGAAGCGTCGTAGTGAGA
mev-1	GGAATTCGCTTCTTAGGAT	GCAGTCTTGTTGCTCTTGT
sod-1	ACGCTCGTCACGCTTTAC	TCTTCTGCCTTGTCTCCG
sod-2	GGCATCAACTGTCGCTGT	ACAAGTCCAGTTGTTGCC
sod-3	TGACATCACTATTGCGGT	GGGACCATTCCTTCCAAA
sod-4	CACCAGATGACTCGAACA	AATGAGGCAAGAGAGTCG
sod-5	ATATTGCCAATGCCGTTC	CTCTTCACCTTCGGCTTT

Table S2. Information on the examined genes

Gene	Products of the genes
gem-4	Ca^{2+}-dependent phosphatidylserine binding protein
mtm-6	myotubularin lipid phosphatase orthologous
nhx-2	sodium/proton exchanger
opt-2	high-affinity, proton-coupled oligopeptide transporter
pkc-3	atypical protein kinase
par-3	PDZ domain-containing protein orthologous
par-6	PDZ-domain-containing protein
pgp-1	transmembrane protein
pgp-3	transmembrane protein
vha-6	membrane-bound (V0) domain of vacuolar proton-translocating ATPase (V-ATPase)
gtl-1	TRPM subfamily member of the TRP channel family
erm-1	ortholog of the ERM family of cytoskeletal linkers
eps-8	homolog of mouse epidermal growth factor receptor kinase substrate
act-5	ortholog of human cytoplasmic actin
ifb-2	nonessential intermediate filament protein
dlg-1	MAGUK protein
ajm-1	member of the apical junction molecule class
egl-8	phospholipase C beta homolog
let-413	protein with strong similarity to human ERBIN, rat DENSIN, Drosophila SCRIB and its human ortholog hSCRIB
nfm-1	homolog of human merlin/schwannomin (NF2)
inx-3	gap protein
lin-7	a protein containing a PDZ domain and an L27 domain
abts-4	anion transporter
age-1	phosphoinositide 3-kinase (PI3K) p110 catalytic subunit

daf-2	a receptor tyrosine kinase/insulin/IGF receptor
daf-16	forkhead box O (FOXO) transcription factor
daf-18	a lipid phosphatase homologous to the human PTEN tumor suppressor
pdk-1	3-phosphoinositide-dependent kinase 1 ortholog
akt-1	an ortholog of the serine/threonine kinase Akt/PKB
akt-2	a homolog of the serine/threonine kinase Akt/PKB
sgk-1	a serine/threonine protein kinase
sod-1	copper/zinc superoxide dismutase
sod-2	manganese - superoxide dismutase
sod-3	manganese - superoxide dismutase
sod-4	copper/zinc superoxide dismutase
sod-5	copper/zinc superoxide dismutase
ctl-1	catalase
ctl-2	catalase
ctl-3	catalase
isp-1	“Rieske” iron-sulfur protein
mev-1	a subunit of the enzyme succinate dehydrogenase cytochrome b
gas-1	subunit of mitochondrial complex I
clk-1	ubiquinone biosynthesis protein COQ7