Electronic Supplementary Material (ESI) for Toxicology Research.


Table S1. Description of all mutants.

| **Gene Symbol and Allele** | **Gene Description** | **Phenotype** |
|---|---|---|
| *lin-45(n2520)* | Abnormal cell lineage. Encodes an ortholog of the vertebrate protein RAF (MAPKKK) | |
| *mek-2(n1989)* | Encodes a MAPKK or ERK Kinase | |
| *ksr-1(ku68)* | One of two *C. elegans* Kinase Suppressor of Ras paralogs | |
| *mpk-1(ku1)* | Encodes a MAPK an ERK ortholog functioning | susceptibility to pathogens |
| *mek-1(ks54)* | Encodes a MAPKK or ERK Kinase. The highest homology to mammalian MKK7 | Hypersensitive to copper and cadmium ions, and to starvation |
| *jkk-1(km2)* | JNK Kinase. Encodes a member of the MAPKK superfamily | Abnormal locomotion phenotype. |
| *mkk-4(ju91)* | Encodes a MAPKK that is a member of the MKK4 family | |
| *jnk-1(gk7)* | Encodes a serine/threonine kinase that is the sole *C. elegans* member of the JNK subgroup of MAPK | Hypersensitive to cadmium ions |
| *nsy-1(ag3)* | Encodes a MAPKKK. Orthologous to the mammalian ASK family of protein kinases | susceptibility to pathogens |
| *sek-1(ag1)* | Encodes a MAPKK(SAPK/ERK kinase). *Sek-1* has highly similarity with mammalian SEK1/MKK4, MKK6 and MKK3. Functions in the p38 MAPK cascade that regulates innate immunity. Enhanced susceptibility to pathogens | susceptibility to pathogens |
| *pmk-1(km25)* | Encodes a MAPK, orthologous to human p38 MAPK. Sensitive to heavy metal and oxidative stress | Sensitive to heavy metal and oxidative stress |
| *daf-2(e1370)* | Encodes a receptor tyrosine kinase that is the *C. elegans* insulin/IGF receptor ortholog | Temperature sensitive dauer constitutive |
| *age-1(hx546)* | Ageing alteration. | Long life, normal fertility and stress tolerant |
| *daf-16(mu86)* | Ebnormal dauer formation. Encodes the sole *C. elegans* forkhead box O (FOXO) homologue. | Dauer defective. Short lived |
| *mev-1(kn-1)* | rtholog of the succinate dehydrogenase cytochrome b560 subunit, an integral membrane protein that is a subunit of mitochondrial respiratory chain complex II | Oxygen sensitive. Short life span |
| *muIs84 Sod-3* | *sod-3p::GFP* | Green expression in head, tail and around vulva. |