**Supplementary file 1 The 85 lysosome-related genes analyzed by RT-PCR.**

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|  | **Gene** | **Description** |
| **Lysosomal membrane proteins (11)** | ***scav-3*** | ortholog of human CD36 antigen |
| ***lmp-1*** | similar to vertebrate lysosome-associatedmembrane protein CD68 |
| ***lmp-2*** | orthologous to LAMP(lysosomal associated membrane glycoprotein) |
| ***ncr-1*** | orthologous to human NPC1 |
| ***ncr-2*** | orthologous to human NPC1 |
| ***cup-5*** | calcium transporter |
| ***slc-36.2*** | proton-coupled amino acid transporter |
| ***Y51F10.4*** | amino acid transporter |
| ***laat-1*** | ortholog of human PQLC2 |
| ***ctns-1*** | lysosomal cystine transporter |
| ***F13H10.3*** | ortholog of human SLC38A9 |
| **V0 subunits****(11)** | ***vha-1*** | ortholog of subunit c ofthe membrane-bound (V0) domain of V-ATPase |
| ***vha-2*** | ortholog of subunit c ofthe membrane-bound (V0) domain of V-ATPase |
| ***vha-3*** | ortholog of subunit c ofthe membrane-bound (V0) domain of V-ATPase |
| ***vha-4*** | ortholog of subunit b ofthe membrane-bound (V0) domain of V-ATPase |
| ***vha-5*** | ortholog of subunit a ofthe membrane-bound (V0) domain of V-ATPase |
| ***vha-6*** | ortholog of subunit a ofthe membrane-bound (V0) domain of V-ATPase |
| ***vha-7*** | ortholog of subunit a ofthe membrane-bound (V0) domain of V-ATPase |
| ***vha-16*** | ortholog of subunit d ofthe membrane-bound (V0) domain of V-ATPase |
| ***vha-17*** | ortholog of subunit e ofthe membrane-bound (V0) domain of V-ATPase |
| ***vha-19*** | ortholog of subunit Ac45 ofthe membrane-bound (V0) domain of V-ATPase |
| ***unc-32*** | ortholog of subunit a ofthe membrane-bound (V0) domain of V-ATPase |
| **V1 subunits****(9)** | ***vha-8*** | ortholog of subunit E ofthe cytoplasmic (V1) domain of V-ATPase |
| ***vha-9*** | ortholog of subunit F ofthe cytoplasmic (V1) domain of V-ATPase |
| ***vha-10*** | ortholog of subunit G ofthe cytoplasmic (V1) domain of V-ATPase |
|  |  |
| ***vha-11*** | ortholog of subunit C ofthe cytoplasmic (V1) domain of V-ATPase |
| ***vha-12*** | ortholog of subunit B ofthe cytoplasmic (V1) domain of V-ATPase |
| ***vha-13*** | ortholog of subunit A ofthe cytoplasmic (V1) domain of V-ATPase |
| ***vha-14*** | ortholog of subunit D ofthe cytoplasmic (V1) domain of V-ATPase |
| ***vha-15*** | ortholog of subunit H ofthe cytoplasmic (V1) domain of V-ATPase |
| ***vha-18*** | ortholog of subunit H ofthe cytoplasmic (V1) domain of V-ATPase |
| **Protease (cathepsins)****(26)** | ***ctsa-1*** | ortholog of human CTSA (cathepsin A) |
| ***Y40D12A.2*** | ortholog of human CTSA (cathepsin A) |
| ***F41C3.5*** | ortholog of human CTSA (cathepsin A) |
| ***K10C2.1*** | ortholog of human CTSA (cathepsin A) |
| ***Y16B4A.2*** | ortholog of human CTSA (cathepsin A) |
| ***F32A5.3*** | ortholog of human CTSA (cathepsin A) |
| ***K10B2.2*** | ortholog of human CTSA (cathepsin A) |
| ***asp-1*** | ortholog of cathepsin D aspartic protease |
| ***asp-3*** | ortholog of aspartyl protease |
| ***asp-4*** | ortholog of aspartyl protease |
| ***asp-8*** | ortholog of aspartyl protease |
| ***asp-13*** | ortholog of aspartyl protease |
| ***cpr-1*** | ortholog of human CTSB (cathepsin B) |
| ***cpr-2*** | ortholog of human CTSB (cathepsin B) |
| ***cpr-3*** | ortholog of human CTSB (cathepsin B) |
| ***cpr-4*** | ortholog of human CTSB (cathepsin B) |
| ***cpr-5*** | ortholog of human CTSB (cathepsin B) |
| ***cpr-6*** | ortholog of human CTSB (cathepsin B) |
| ***cpr-8*** | ortholog of human CTSB (cathepsin B) |
| ***T28H10.3*** | ortholog of human CTSB (cathepsin B) |
| ***cpl-1*** | member of the cathepsin L-like cysteine protease family |
| ***cpz-1*** | ortholog of cathepsin z-like cysteine protease |
| ***tag-196*** | ortholog of human CTSF |
| ***tag-329*** | ortholog of human CTSO |
| ***Y40H7A.10*** | ortholog of human CTSO |
| ***F15D4.4*** | cysteine-type peptidase |
| **Non-protease hydrolases****(28)** | ***asm-1*** | sphingomyelin phosphodiesterase |
| ***asm-2*** | sphingomyelin phosphodiesterase |
| ***asm-3*** | sphingomyelin phosphodiesterase |
| ***sul-1*** | the sole *C. elegans* 6-O-endosulfatase |
| ***sul-2*** | orthologous to the human gene encoding arylsulfatase A |
| ***sul-3*** | orthologous to the human gene encoding arylsulfatase B |
| ***hex-1*** | a beta-N-acetylhexosaminidase |
| ***hex-2*** | a beta-N-acetylhexosaminidase |
| ***hex-3*** | a beta-N-acetylhexosaminidase |
| ***hex-4*** | a beta-N-acetylhexosaminidase |
| ***hex-5*** | a beta-N-acetylhexosaminidase |
| ***gba-1*** | homologous to the human gene encoding glucocerebrosidase  |
| ***gba-2*** | homologous to the human gene encoding glucocerebrosidase  |
| ***gba-3*** | homologous to the human gene encoding glucocerebrosidase  |
| ***gba-4*** | homologous to the human gene encoding glucocerebrosidase |
| ***pho-1*** | acid phosphatase |
| ***pho-10*** | acid phosphatase |
| ***Y105E8B.9*** | orthologous to the human gene encoding glutathione transferase zeta 1 |
| ***M05B5.4*** | phospholipase A2 |
| ***rnst-2*** | ribonuclease |
| ***lipl-1*** | orthologous to members of the human Lipase family |
| ***lipl-2*** | orthologous to members of the human Lipase family |
| ***lipl-3*** | orthologous to members of the human Lipase family |
| ***lipl-4*** | orthologous to members of the human Lipase family |
| ***lipl-5*** | orthologous to members of the human Lipase family |
| ***lipl-6*** | orthologous to members of the human Lipase family |
| ***lipl-7*** | orthologous to members of the human Lipase family |
| ***lipl-8*** | orthologous to members of the human Lipase family |