|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Dog ID | DE50-E4 | DE50-G4 | DE50-H6 | DE50-I1 | DE50-I2 | DE50-K2 | DE50-K3 | DE50-L1 | DE50-L6 | DE50-M1 | DE50-P1 | DE50-R4 | DE50-T4 | DE50-T6 | DE50-U1 | DE5-V2 | DE50-Y1 | DE50-Y5 | WT-E3 | WT-E5 | WT-G2 | WT-H4 | WT-J1 | WT-K4 | WT-K5 | WT-M2 | WT-P3 | WT-Q5 | WT-T3 | WT-T7 | WT-Y2 | WT-Y3 |
| Age |
| 0 |  |  |  |  |  |  |  |  |  |  | 4331 | 3521 | 4633 | 4208 | 5096 | 8234 | 11160 | 5426 |  |  |  |  |  |  |  |  | 1207 | 898 | 792 | 1050 | 2523 | 1497 |
| 1 |  | 49560 |  | 88725 |  |  |  |  |  |  | 30566 |  | 18391 | 11085 |  |  |  |  |  |  |  | 210 |  |  |  |  |  | 518 | 313 | 200 |  |  |
| 2 |  | 65373 | 28581 | 100527 |  |  |  |  |  | 41902 |  | 66650 | 17273 | 33046 |  |  | 31409 |  |  |  | 252 | 315 |  |  |  | 303 | 279 | 675 | 234 | 229 |  |  |
| 3 | 41496 | 56826 | 43008 | 98910 | 48090 | 63660 | 71360 | 66234 | 74676 | 71626 |  | 19197 | 60250 | 48200 |  |  | 74100 | 79900 | 357 | 231 | 399 | 210 | 218 | 357 | 336 | 294 |  |  |  |  | 338 | 496 |
| 4 |  | 88263 | 55167 | 60774 | 79338 | 92260 | 100320 | 93198 | 120813 | 84063 | 121400 | 68500 | 57300 | 76250 | 91550 | 74700 | 79900 | 82650 |  |  | 215 | 202 | 315 | 420 | 273 | 252 | 206 | 355 |  |  | 453 | 319 |
| 5 |  | 106134 | 51828 | 84672 | 98532 |  |  | 41097 | 46781 | 14994 | 62800 |  |  | 53950 | 99700 | 125100 | 57300 | 60100 |  |  | 420 | 210 | 231 |  |  | 210 | 296 | 385 | 397 | 255 | 239 | 585 |
| 6 |  | 91371 | 71778 | 56112 | 104919 |  | 93870 | 28778 | 37926 | 52080 |  |  |  | 53450 |  | 37893 | 52900 | 38303 | 210 | 147 | 399 | 147 | 168 | 336 | 294 | 231 |  |  | 282 | 393 | 208 | 247 |
| 7 | 50169 | 75306 | 78510 | 70728 | 43127 |  |  | 30051 | 49651 |  | 67400 | 102350 |  | 54700 | 162150 |  | 66700 | 70750 |  | 205 | 168 | 168 | 147 | 210 | 210 | 147 |  |  |  |  | 376 | 171 |
| 8 | 42822 | 60858 | 99687 | 60018 | 60039 |  |  |  |  |  | 69500 | 97150 |  | 39759 | 98800 | 55650 | 55200 | 64150 | 126 | 378 | 147 | 210 | 105 | 210 | 210 | 126 | 207 | 152 | 1537 | 235 | 165 | 175 |
| 9 | 54894 | 107796 | 93534 | 44940 | 45318 |  |  |  |  |  | 34838 |  |  | 37270 | 96100 | 121300 | 29079 | 48650 | 105 | 126 | 210 | 147 | 126 | 210 | 210 | 126 |  | 370 | 583 | 240 | 155 | 156 |
| 10 |  | 68754 | 67914 |  | 49287 |  |  |  |  |  | 52800 | 52100 |  | 22281 | 117600 | 36697 | 48800 | 47850 | 147 | 189 | 126 | 105 | 123 | 105 | 51 | 126 | 155 | 211 | 205 | 678 | 133 | 135 |
| 11 | 49896 | 44079 | 36456 |  | 34608 |  |  |  |  |  | 58750 | 139950 |  | 66250 | 159650 | 69750 | 60050 | 26616 | 189 | 105 | 168 | 126 | 138 | 126 | 105 | 142 | 208 | 239 | 236 | 197 | 121 | 137 |
| 12 | 99519 |  | 51534 |  | 33873 |  |  |  |  |  |  | 76350 |  | 30420 | 125750 | 28680 | 58250 | 45600 | 126 | 84 | 126 | 147 |  | 122 | 113 | 175 |  | 144 | 201 | 205 | 132 | 108 |
| 13 | 67977 |  | 17766 | 89250 | 76920 |  |  |  |  |  | 67350 | 47200 |  | 51600 | 43500 |  | 64150 | 68460 | 105 | 84 | 126 | 202 | 116 | 252 | 122 | 132 | 130 | 144 | 153 | 130 | 118 | 117 |
| 14 | 51387 |  | 37590 | 50960 | 48745 |  |  |  |  |  | 76200 | 84650 |  | 33724 |  |  | 74100 | 91450 | 85 | 84 | 105 | 105 | 178 | 164 |  | 854 | 133 | 188 | 112 | 174 | 103 |  |
| 15 | 117789 |  | 29725 | 29753 | 25575 |  |  |  |  |  |  | 60200 |  | 49450 | 83450 |  |  |  | 207 | 84 | 147 | 210 | 288 | 205 |  | 107 |  |  | 198 | 116 |  |  |
| 16 | 31017 |  | 13230 | 84740 | 107930 |  |  |  |  |  | 22828 | 52250 |  | 34559 | 66250 |  |  |  | 210 |  | 147 | 630 | 123 | 161 |  |  | 103 | 150 | 127 | 238 |  |  |
| 17 | 54674 |  | 19278 | 46470 | 39907 |  |  |  |  |  | 82750 | 47800 |  | 28768 | 108000 |  |  |  | 210 | 105 | 126 | 84 | 219 |  |  |  | 161 | 355 | 105 | 143 |  |  |
| 18 | 28791 |  | 13272 | 71640 | 70530 |  |  |  |  |  | 34236 | 31808 |  |  |  |  |  |  | 126 | 164 | 357 |  |  |  |  |  | 144 | 285 |  |  |  |  |

Raw data for plasma creatine kinase (CK) activity. Dog ID shows the study name of each individual animal included in this study: dog IDs with the preface “DE50-" are DE50-MD dogs, dogs with the preface WT are wild-type dogs. Age is displayed in months. White boxes show samples that were tested. Grey boxes indicate untested samples: dark grey boxes were unavailable due to animal euthanasia prior to this timepoint; light grey boxes were unavailable.

|  |  |  |  |
| --- | --- | --- | --- |
| **Dog ID** | **Genotype** | **Age (days)** | **CK activity (U/l)** |
| DE50-S4 | DE50-MD | 2 | 15347 |
| DE50-Y1 | DE50-MD | 2 | 11160 |
| DE50-Y5 | DE50-MD | 2 | 5426 |
| DE50-P1 | DE50-MD | 3 | 4331 |
| DE50-U1 | DE50-MD | 3 | 5096 |
| DE50-Z2 | DE50-MD | 3 | 2280 |
| DE50-Z3 | DE50-MD | 3 | 2472 |
| DE50-Z6 | DE50-MD | 3 | 6698 |
| DE50-N5 | DE50-MD | 4 | 3613 |
| DE50-N7 | DE50-MD | 4 | 4952 |
| DE50-R4 | DE50-MD | 4 | 3521 |
| DE50-V2 | DE50-MD | 4 | 8234 |
| DE50-V3 | DE50-MD | 4 | 4995 |
| DE50-V6 | DE50-MD | 4 | 8437 |
| DE50-O1 | DE50-MD | 5 | 1520 |
| DE50-O2 | DE50-MD | 5 | 1731 |
| DE50-O4 | DE50-MD | 5 | 1453 |
| DE50-O5 | DE50-MD | 5 | 1234 |
| DE50-T4 | DE50-MD | 5 | 4633 |
| DE50-T6 | DE50-MD | 5 | 4208 |
| DE50-AD2 | DE50-MD | 7 | 1149 |
| DE50-AD4 | DE50-MD | 7 | 1358 |
| DE50-AD5 | DE50-MD | 7 | 907 |
| DE50-AD7 | DE50-MD | 7 | 4683 |
| DE50-AD8 | DE50-MD | 7 | 2305 |
| DE50-AE1 | DE50-MD | 7 | 5850 |
| DE50-AE3 | DE50-MD | 7 | 4483 |
| DE50-AH3 | DE50-MD | 8 | 6093 |
| WT-S2 | WT | 2 | 1592 |
| WT-S6 | WT | 2 | 2281 |
| WT-Y2 | WT | 2 | 2523 |
| WT-Y3 | WT | 2 | 1497 |
| WT-P3 | WT | 3 | 1207 |
| WT-U3 | WT | 3 | 950 |
| WT-U4 | WT | 3 | 1277 |
| WT-U6 | WT | 3 | 1131 |
| WT-N1 | WT | 4 | 648 |
| WT-N4 | WT | 4 | 674 |
| WT-Q4 | WT | 4 | 1257 |
| WT-Q5 | WT | 4 | 898 |
| WT-V4 | WT | 4 | 1037 |
| WT-O6 | WT | 5 | 680 |
| WT-T3 | WT | 5 | 792 |
| WT-T7 | WT | 5 | 1050 |
| WT-W1 | WT | 5 | 682 |
| WT-W4 | WT | 5 | 932 |
| WT-W5 | WT | 5 | 1092 |
| WT-W6 | WT | 5 | 1182 |
| WT-W7 | WT | 5 | 1412 |
| WT-AD3 | WT | 7 | 749 |
| WT-AE2 | WT | 7 | 643 |
| WT-AH1 | WT | 8 | 855 |
| WT-AH2 | WT | 8 | 587 |
| WT-AH5 | WT | 8 | 572 |

Plasma samples tested for week-1 creatine kinase (CK) activity. Dog ID shows the study name of each individual animal included in this study: dog IDs with the preface “DE50-" are DE50-MD dogs, dogs with the preface WT are wild-type dogs. Age is displayed in days.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Dog ID | DE50-E4 | DE50-G4 | DE50-H6 | DE50-I1 | DE50-I2 | DE50-K2 | DE50-K3 | DE50-L1 | DE50-L6 | DE50-M1 | WT-E3 | WT-E5 | WT-G2 | WT-H4 | WT-J1 | WT-K4 | WT-K5 | WT-M2 | WT-P3 | WT-Q5 |
| Age |
| 1 |  | 0.073 | 0.104 |  |  |  |  |  |  | 0.169 |  |  | 0 | 0 |  |  |  |  |  | 0 |
| 2 |  | 0.101 | 0.120 |  |  |  |  |  |  |  |  |  | 0 | 0 |  |  |  | 0 | 0 | 0 |
| 3 |  |  | 0.154 |  | 0.135 | 0.199 | 0.204 | 0.128 | 0.311 | 0.129 |  |  | 0 |  | 0 | 0 | 0 | 0 |  |  |
| 4 | 0.119 | 0.092 | 0.055 |  |  |  | 0.196 | 0.182 | 0.310 | 0.204 |  |  | 0 |  | 0 | 0 | 0 | 0 |  |  |
| 5 | 0.153 | 0.151 | 0.174 | 0.139 | 0.201 |  |  | 0.228 | 0.311 | 0.068 |  | 0 | 0 |  | 0 |  |  |  |  |  |
| 6 | 0.156 | 0.128 | 0.230 | 0.195 | 0.146 |  | 0.288 | 0.337 |  | 0.114 | 0 | 0 | 0 |  | 0 | 0 | 0 |  | 0 | 0 |
| 7 | 0.215 |  | 0.192 | 0.167 | 0.247 |  |  |  | 0.087 |  | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 |  |  |
| 8 | 0.083 | 0.116 | 0.198 | 0.174 |  |  |  |  |  |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |  |
| 9 | 0.101 | 0.183 | 0.185 | 0.158 |  |  |  |  |  |  | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 |  | 0 |
| 10 | 0.096 | 0.119 | 0.168 |  | 0.231 |  |  |  |  |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |  |  |
| 11 | 0.093 | 0.070 | 0.190 | 0.163 | 0.150 |  |  |  |  |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |  |
| 12 | 0.116 |  | 0.144 | 0.123 |  |  |  |  |  |  | 0 | 0 | 0 | 0 | 0 |  |  |  |  | 0 |
| 13 | 0.109 |  | 0.080 | 0.106 | 0.153 |  |  |  |  |  | 0 | 0 | 0 | 0 | 0 |  |  | 0 |  |  |
| 14 | 0.138 |  | 0.072 | 0.140 | 0.056 |  |  |  |  |  | 0 | 0 | 0 | 0 | 0 |  |  | 0 |  |  |
| 15 | 0.079 |  | 0.066 | 0.072 | 0.065 |  |  |  |  |  | 0 |  | 0 | 0 | 0 |  |  |  | 0 | 0 |
| 16 | 0.072 |  |  | 0.154 | 0.066 |  |  |  |  |  | 0 |  | 0 | 0 | 0 | 0 |  |  | 0 | 0 |
| 17 | 0.136 |  | 0.104 | 0.140 | 0.101 |  |  |  |  |  | 0 |  | 0 | 0 | 0 | 0 |  |  | 0 | 0 |
| 18 | 0.124 |  | 0.096 | 0.129 | 0.071 |  |  |  |  |  | 0 | 0 | 0 | 0 |  | 0 |  | 0 | 0 | 0 |

Serum MYOM3 relative fluorescence units. Dog ID shows the study name of each individual animal included in this study: dog IDs with the preface “DE50-" are DE50-MD dogs, dogs with the preface WT are wild-type dogs. White boxes show samples that were tested. Grey boxes indicate untested samples: dark grey boxes were unavailable due to animal euthanasia prior to this timepoint; light grey boxes were unavailable.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Dog ID | DE50-E4 | DE50-G4 | DE50-H6 | DE50-I1 | DE50-I2 | DE50-K3 | DE50-L1 | DE50-M1 | DE50-P1 | DE50-R4 | WT-E3 | WT-E5 | WT-G2 | WT-H4 | WT-J1 | WT-K4 | WT-K5 | WT-M2 |
| Age |
| 3 | 6111 | 4740 | 7494 |  | 3993 | 7225 | 5420 | 9487 | 4654 | 5901 | 9688 | 7685 |  | 16287 |  | 9253 | 15888 | 10636 |  |  |
| 6 | 10515 | 11525 |  | 6237 | 7176 | 6660 | 8557 | 6733 | 8644 | 7224 |  |  | 15699 | 21937 | 20598 |  | 14320 | 25593 |  |  |
| 9 | 10515 | 6392 | 9749 | 6183 | 10832 |  |  |  | 8063 | 10204 |  | 13789 | 26238 | 29936 | 12221 | 25301 | 29862 | 18923 |  |  |
| 12 | 10560 | 6349 | 5699 | 8548 | 19932 |  |  |  | 8920 | 10977 | 23896 | 17256 | 29212 | 22002 | 29223 | 18467 | 26137 | 20692 |  |  |
| 15 | 7445 |  | 5367 | 7333 | 22259 |  |  |  | 8634 | 13303 |  | 11745 | 23532 | 23366 | 25437 |  |  | 23982 |  |  |
| 18 | 7842 |  | 8405 | 10711 | 13209 |  |  |  | 9885 | 10529 |  | 15281 | 20740 | 17118 | 16784 |  |  | 25442 |  |  |

Serum samples tested by MSTN ELISA. Dog ID shows the study name of each individual animal included in this study: dog IDs with the preface “DE50-" are DE50-MD dogs, dogs with the preface WT are wild-type dogs. Age is displayed in months. White boxes show samples that were tested. Grey boxes indicate untested samples: dark grey boxes were unavailable due to animal euthanasia prior to this timepoint; light grey boxes were unavailable.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Dog ID | DE50-E4 | DE50-G4 | DE50-H6 | DE50-I1 | DE50-I2 | DE50-K2 | DE50-K3 | DE50-L1 | DE50-L6 | DE50-M1 | DE50-P1 | DE50-R4 | WT-E3 | WT-E5 | WT-G2 | WT-H4 | WT-J1 | WT-K4 | WT-K5 | WT-M2 |
| Age |
| 1 |  | 0.3474 | 0.6018 |  |  |  |  |  |  |  |  |  |  |  | 0.0010 | 0.0003 |  |  |  |  |
| 2 |  | 1.0487 | 0.4694 |  |  |  |  |  |  |  | 0.6658 | 0.2767 |  |  | 0.0011 | 0.0029 |  |  |  | 0.0001 |
| 3 |  | 1.0149 | 0.0869 |  | 0.1760 | 0.2078 | 0.5066 | 0.1826 | 0.2363 | 0.4635 |  |  |  |  | 0.0005 | 0.0009 | 0.0021 |  | 0.0016 | 0.0016 |
| 4 |  | x | 0.3489 | 0.6962 | 0.4284 | 1.2650 | 1.0572 | 0.5306 | 6.1220 | 1.8328 | 3.5971 | 0.6404 |  |  | x | 0.0005 | 0.0039 |  | x | 0.0021 |
| 5 |  | 1.9097 | 0.4884 | 1.5629 | 2.3433 |  | 0.8104 | 0.2513 | 2.8677 | 0.5069 | 2.2538 | 2.6131 |  |  | 0.0052 | 0.0013 | 0.0155 |  |  | 0.0010 |
| 6 | 0.0912 | 0.8817 | 0.4303 | 0.4760 | 1.5365 |  | 1.4393 | 0.0315 | 0.2595 | 4.0583 | 0.9165 |  | 0.0005 | x | 0.0015 | 0.0050 | 0.0071 |  | 0.0003 | 0.0008 |
| 7 | 0.5216 | 0.3921 | 0.8042 |  | 0.1791 |  |  | 0.0246 | 0.5899 |  | 0.9859 | 0.5884 | 0.0005 | 0.0002 | 0.0001 | 0.0019 | 0.0018 | 0.0029 | 0.0012 | 0.0033 |
| 8 | 0.7763 | 2.0793 | 1.0023 | 1.9317 | 0.7164 |  |  |  |  |  | 0.6854 | 1.1920 | 0.0010 | 0.0013 | 0.0010 | 0.0069 | x |  | 0.0000 | 0.0002 |
| 9 | 0.2304 | 0.4046 | 0.0644 | 0.3624 | 0.4106 |  |  |  |  |  | 1.0943 |  | 0.0004 | 0.0003 | 0.0004 | 0.0104 | x | 0.0012 | 0.0010 |  |
| 10 | 0.4453 | 0.5281 | 0.5531 | 0.8907 | 7.3763 |  |  |  |  |  | 0.2168 | 3.4583 | 0.0028 | 0.0016 | 0.0008 | 0.0072 | 0.0063 | 0.0003 | 0.0001 | 0.0025 |
| 11 | X | 0.0817 | 1.5780 | 1.1954 | 2.1219 |  |  |  |  |  | 3.2521 | 3.5026 | 0.0013 | 0.0002 | 0.0109 | 0.0012 | 0.0007 |  | 0.0004 | 0.0015 |
| 12 | 0.2326 |  | 0.1797 | 0.7458 | 0.1567 |  |  |  |  |  | 0.3577 | 0.6203 | 0.0007 | 0.0004 | 0.0053 | 0.0216 | 0.0007 |  |  | 0.0019 |
| 13 | 0.4400 |  | 0.5847 | 3.0395 | 4.7581 |  |  |  |  |  |  |  | 0.0002 | 0.0001 | 0.0037 | 0.0157 | 0.0010 |  | 0.0003 | 0.0003 |
| 14 | 0.1541 |  | 0.6598 | 1.3464 | 0.3878 |  |  |  |  |  | 1.1958 |  | 0.0015 |  | 0.0038 | 0.0038 | 0.0018 |  |  | 0.0007 |
| 15 | 0.8811 |  | 0.1773 | 0.0739 |  |  |  |  |  |  | 1.3211 | 1.1594 | 0.0004 | 0.0034 | 0.0090 | 0.0253 | 0.0141 |  |  |  |
| 16 | 0.1246 |  | 0.2377 | 2.3774 | 1.8485 |  |  |  |  |  |  | 1.1131 | 0.0007 | 0.0003 | 0.0053 |  | 0.0002 |  |  | 0.0004 |
| 17 | 1.0824 |  | 0.0068 | 0.5001 | 1.1065 |  |  |  |  |  | 0.5317 | 0.9487 | 0.0065 |  | 0.0296 | 0.0019 | 0.0009 |  |  | 0.0002 |
| 18 | 0.1546 |  |  |  | 0.2600 |  |  |  |  |  | 0.4781 | 1.2104 | 0.0039 | 0.0050 | 0.0155 |  |  |  |  | 0.0017 |

DystromiR miR-1 RT-qPCR relative quantity (normalised to miR 233). X = sample rejected following quality control. Age is displayed in months. Dog ID shows the study name of each individual animal included in this study: dog IDs with the preface “DE50-" are DE50-MD dogs, dogs with the preface WT are wild-type dogs. White boxes show samples that were tested. Grey boxes indicate untested samples: dark grey boxes were unavailable due to animal euthanasia prior to this timepoint; light grey boxes were unavailable.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Dog ID | DE50-E4 | DE50-G4 | DE50-H6 | DE50-I1 | DE50-I2 | DE50-K2 | DE50-K3 | DE50-L1 | DE50-L6 | DE50-M1 | DE50-P1 | DE50-R4 | WT-E3 | WT-E5 | WT-G2 | WT-H4 | WT-J1 | WT-K4 | WT-K5 | WT-M2 |
| Age |
| 1 |  | 0.0550 | 0.0080 |  |  |  |  |  |  |  |  |  |  |  | 0.0000 | 0.0000 |  |  |  |  |
| 2 |  | 0.0200 | 0.0199 |  |  |  |  |  |  |  | 0.5679 | 0.6059 |  |  | 0.0001 |  |  |  |  | 0.0004 |
| 3 |  | 0.0212 | 0.0021 |  | 0.1720 | 0.7119 | 0.2415 | 0.2991 | 0.3124 | 0.9658 |  |  |  |  |  |  | 0.0007 |  | 0.0004 | 0.0014 |
| 4 |  | x | 0.0236 | 0.0885 | 0.2964 | 0.6281 | 0.2136 | 0.3043 | 0.2693 | 0.8274 | 3.5971 | 0.4985 |  |  | x | 0.0003 | 0.0003 |  | x | 0.0021 |
| 5 |  | 0.2222 | 0.0177 | 0.5487 | 1.5209 |  | 1.8427 | 0.0835 | 2.2377 | 0.2713 | 2.0753 | 3.2709 |  |  | 0.0002 | 0.0234 | 0.0027 |  |  | 0.0007 |
| 6 | 0.0324 | 0.0389 | 0.0387 | 0.1173 | 0.2103 |  | 0.5221 | 0.1971 | 0.3427 | 3.3487 | 1.3111 |  | 0.0004 | x | 0.0001 | 0.0592 | 0.0029 |  | 0.0001 | 0.0007 |
| 7 | 0.0600 | 0.0369 | 0.0692 |  | 0.0443 |  |  | 0.1245 | 0.7033 |  | 1.3017 | 0.7646 | 0.0001 | 0.0004 | 0.0000 | 0.0129 | 0.0009 | 0.0014 | 0.0002 | 0.0028 |
| 8 | 0.0308 | 7.0396 | 0.8564 | 0.5696 | 0.5993 |  |  |  |  |  | 1.0858 | 3.1892 | 0.0000 | 0.0001 | 0.0001 | 0.0327 | x |  | 0.0000 | 0.0002 |
| 9 | 0.0143 | 0.0494 | 0.0523 | 0.0996 | 0.1462 |  |  |  |  |  | 1.0044 |  | 0.0000 | 0.0000 | 0.0000 | 0.0021 | x | 0.0029 | 0.0002 |  |
| 10 | 0.0420 | 0.0919 | 0.1763 | 0.2337 | 2.8644 |  |  |  |  |  | 0.1828 | 2.4359 | 0.0249 | 0.0002 | 0.0003 | 0.0002 | 0.0019 | 0.0006 | 0.0001 | 0.0022 |
| 11 | x | 0.0231 | 0.1142 | 0.1028 | 1.1813 |  |  |  |  |  | 1.8512 | 3.4600 | 0.0001 | 0.0000 | 0.0018 | 0.0004 | 0.0003 |  | 0.0001 | 0.0006 |
| 12 | 0.0421 |  | 0.0290 | 0.1849 | 0.1585 |  |  |  |  |  | 0.3302 | 0.3463 | 0.0002 | 0.0002 | 0.0002 | 0.0007 | 0.0031 |  |  | 0.0008 |
| 13 | 0.0580 |  | 0.1148 | 0.9656 | 0.1936 |  |  |  |  |  |  |  | 0.0000 | 0.0001 |  | 0.0006 | 0.0011 |  | 0.0005 | 0.0002 |
| 14 | 0.0274 |  | 0.1174 | 0.7527 | 0.2802 |  |  |  |  |  | 1.1133 |  | 0.0001 | x | 0.0001 | 0.0009 | 0.0010 |  |  | 0.0016 |
| 15 | 0.0497 |  | 0.0173 | 0.0676 |  |  |  |  |  |  | 0.6927 | 0.8562 | 0.0001 | 0.0001 | 0.0003 | 0.0004 | 0.0060 |  |  |  |
| 16 | 0.0044 |  | 0.2045 | 2.3513 | 2.1217 |  |  |  |  |  |  | 0.6521 | 0.0000 | 0.0000 | 0.0004 |  | 0.0002 |  |  | 0.0006 |
| 17 | 0.0565 |  | 0.0044 | 0.5566 | 0.7708 |  |  |  |  |  | 1.2109 | 0.3134 | 0.0002 |  | 0.0012 | 0.0002 | 0.0014 |  |  | 0.0001 |
| 18 | 0.0176 |  |  |  | 0.1299 |  |  |  |  |  | 0.6757 | 0.5422 | 0.0003 | 0.0004 | 0.0006 |  |  |  |  | 0.0006 |

DystromiR miR-133a RT-qPCR relative quantity (normalised to miR 233). X = sample rejected following quality control. Age is displayed in months. Dog ID shows the study name of each individual animal included in this study: dog IDs with the preface “DE50-" are DE50-MD dogs, dogs with the preface WT are wild-type dogs. White boxes show samples that were tested. Grey boxes indicate untested samples: dark grey boxes were unavailable due to animal euthanasia prior to this timepoint; light grey boxes were unavailable.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Dog ID | DE50-E4 | DE50-G4 | DE50-H6 | DE50-I1 | DE50-I2 | DE50-K2 | DE50-K3 | DE50-L1 | DE50-L6 | DE50-M1 | DE50-P1 | DE50-R4 | WT-E3 | WT-E5 | WT-G2 | WT-H4 | WT-J1 | WT-K4 | WT-K5 | WT-M2 |
| Age |
| 1 |  | 0.7201 | 1.3126 |  |  |  |  |  |  |  |  |  |  |  | 0.0004 | 0.0009 |  |  |  |  |
| 2 |  | 3.3238 | 1.1761 |  |  |  |  |  |  |  | 0.7559 | 1.0909 |  |  | 0.0019 | 0.0005 |  |  |  | 0.0003 |
| 3 |  | 1.4019 | 1.9389 |  | 0.2018 | 0.3793 | 0.4184 | 0.1756 | 0.2852 | 1.0750 |  |  |  |  | 0.0040 | 0.0003 | 0.0007 |  | 0.0004 | 0.0006 |
| 4 |  | x | 0.4366 | 0.5993 | 0.2778 | 0.8154 | 0.5114 | 0.5666 | 5.5124 | 12.4815 | 3.5971 | 0.9383 |  |  | x | 0.0002 | 0.0004 |  | x | 0.0007 |
| 5 |  | 2.1093 | 0.2975 | 1.2512 | 1.1961 |  | 1.0599 | 0.1328 | 1.9236 | 0.3334 | 1.8890 | 4.3340 |  |  | 0.0004 | 0.0023 | 0.0077 |  |  | 0.0006 |
| 6 | 0.0924 | 0.4637 | 0.4930 | 0.3535 | 0.9478 |  | 0.7866 | 0.1365 | 0.2582 | 7.6578 | 1.0828 |  | 0.0012 | x | 0.0011 | 0.0055 | 0.0023 |  | 0.0001 | 0.0003 |
| 7 | 0.9391 | 0.3374 | 0.5621 |  | 0.0785 |  |  | 0.0497 | 0.6507 |  | 0.8611 | 0.7557 | 0.0006 | 0.0007 | 0.0001 | 0.0008 | 0.0006 | 0.0011 | 0.0004 | 0.0008 |
| 8 | 0.2637 | 2.3980 | 3.9871 | 0.7575 | 0.2967 |  |  |  |  |  | 0.8487 | 10.3237 | 0.0002 | 0.0006 | 0.0002 | 0.0063 | x |  | 0.0000 | 0.0001 |
| 9 | 0.1197 | 0.4501 | 0.0554 | 0.1623 | 0.1361 |  |  |  |  |  | 0.4995 |  | 0.0001 | 0.0001 | 0.0002 | 0.0024 | x | 0.0023 | 0.0002 |  |
| 10 | 0.3753 | 0.3877 | 0.1960 | 0.3743 | 2.5338 |  |  |  |  |  | 0.1380 | 2.8787 | 0.0030 | 0.0006 | 0.0002 | 0.0015 | 0.0007 | 0.0003 | 0.0000 | 0.0004 |
| 11 | x | 0.0531 | 0.7496 | 0.4830 | 0.8390 |  |  |  |  |  | 1.7757 | 3.2822 | 0.0008 | 0.0002 | 0.0018 | 0.0113 | 0.0004 |  | 0.0001 | 0.0005 |
| 12 | 0.2012 |  | 0.0486 | 0.2442 | 0.0426 |  |  |  |  |  | 0.1854 | 0.4318 | 0.0001 | 0.0005 | 0.0016 | 0.0036 | 0.0006 |  |  | 0.0006 |
| 13 | 0.3169 |  | 0.1835 | 0.6593 | 0.8986 |  |  |  |  |  |  |  | 0.0000 | 0.0005 | 0.0108 | 0.0025 | 0.0003 |  | 0.0003 | 0.0002 |
| 14 | 0.0881 |  | 0.1565 | 0.5614 | 0.2017 |  |  |  |  |  | 0.8204 |  | 0.0001 | x | 0.0011 | 0.0007 | 0.0012 |  |  | 0.0007 |
| 15 | 0.2434 |  | 0.0483 | 0.0336 |  |  |  |  |  |  | 0.4976 | 0.6769 | 0.0002 | 0.0002 | 0.0013 | 0.0025 | 0.0010 |  |  |  |
| 16 | 0.1358 |  | 0.1692 | 1.1289 | 1.0141 |  |  |  |  |  |  | 0.6838 | 0.0002 | 0.0001 | 0.0013 |  | 0.0003 |  |  | 0.0002 |
| 17 | 0.2935 |  | 0.0041 | 0.3061 | 0.5582 |  |  |  |  |  | 0.4750 | 0.4088 | 0.0013 |  | 0.0030 | 0.0004 | 0.0009 |  |  | 0.0002 |
| 18 | 0.0716 |  |  |  | 0.0922 |  |  |  |  |  | 0.2883 | 0.3253 | 0.0006 | 0.0009 | 0.0018 |  |  |  |  | 0.0009 |

DystromiR miR-206 RT-qPCR relative quantity (normalised to miR 233). X = sample rejected following quality control. Age is displayed in months. Dog ID shows the study name of each individual animal included in this study: dog IDs with the preface “DE50-" are DE50-MD dogs, dogs with the preface WT are wild-type dogs. White boxes show samples that were tested. Grey boxes indicate untested samples: dark grey boxes were unavailable due to animal euthanasia prior to this timepoint; light grey boxes were unavailable.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Dog ID | DE50-E4 | DE50-G4 | DE50-H6 | DE50-I1 | DE50-I2 | DE50-K2 | DE50-K3 | DE50-L1 | DE50-L6 | DE50-M1 | DE50-P1 | DE50-R4 | WT-E3 | WT-E5 | WT-G2 | WT-H4 | WT-J1 | WT-K4 | WT-K5 | WT-M2 |
| Age |
| 1 |  | 0.0220 | 0.0215 |  |  |  |  |  |  |  |  |  |  |  | 0.0459 | 0.0134 |  |  |  |  |
| 2 |  | 0.0252 | 0.0602 |  |  |  |  |  |  |  | 0.7299 | 0.3442 |  |  | 0.0151 | 0.0151 |  |  |  | 0.0933 |
| 3 |  | 0.0607 | 0.0125 |  | 0.1415 | 0.1774 | 0.0794 | 0.2867 | 0.1866 | 0.3319 |  |  |  |  | 0.0141 | 0.0234 | 0.0237 |  | 0.0219 | 0.1520 |
| 4 |  | x | 0.0370 | 0.0509 | 0.0550 | 0.3760 | 0.6269 | 0.4761 | 0.1632 | 0.1310 | 0.7911 | 0.8926 |  |  | x | 0.0184 | 0.0312 |  | x | 0.0734 |
| 5 |  | 0.0678 | 0.1012 | 0.1502 | 0.0667 |  | 0.0771 | 0.1470 | 0.0983 | 0.0298 | 0.2847 | 0.5601 |  |  | 0.0153 | 0.0043 | 0.0461 |  |  | 0.0444 |
| 6 | 0.0597 | 0.0360 | 0.1385 | 0.1714 | 0.2208 |  | 0.0613 | 0.0276 | 0.0882 | 0.1514 | 0.4369 |  | 0.0044 | x | 0.0180 | 0.0036 | 0.0397 |  | 0.0395 | 0.0721 |
| 7 | 0.0366 | 0.0973 | 0.0654 |  | 0.0586 |  |  | 0.1554 | 0.1479 |  | 0.3168 | 0.5481 | 0.0032 | 0.0041 | 0.0250 | 0.0209 | 0.0300 | 0.0109 | 0.0117 | 0.0275 |
| 8 | 0.0258 | 0.2420 | 0.0477 | 0.0398 | 0.0414 |  |  |  |  |  | 0.4709 | 0.4125 | 0.0117 | 0.0259 | 0.0163 | 0.0042 | x |  | 0.0281 | 0.0600 |
| 9 | 0.0609 | 0.0666 | 0.2173 | 0.1267 | 0.0474 |  |  |  |  |  | 0.1326 |  | 0.0154 | 0.0223 | 0.0173 | 0.0334 | x | 0.0122 | 0.0119 |  |
| 10 | 0.0492 | 0.0335 | 0.0464 | 0.2443 | 0.0350 |  |  |  |  |  | 1.0000 | 0.1055 | 0.0199 | 0.0081 | 0.0060 | 0.0096 | 0.0087 | 0.0137 | 0.0390 | 0.0423 |
| 11 | x | 0.0911 | 0.0815 | 0.0454 | 0.0745 |  |  |  |  |  | 0.2463 | 0.1919 | 0.0070 | 0.0049 | 0.0129 | 0.0040 | 0.0125 |  | 0.0240 | 0.0900 |
| 12 | 0.0277 |  | 0.0202 | 0.0686 | 0.0206 |  |  |  |  |  | 0.1453 | 0.6409 | 0.0078 | 0.0046 | 0.0267 | 0.0041 | 0.0267 |  |  | 0.0699 |
| 13 | 0.0547 |  | 0.0503 | 0.0783 | 0.0465 |  |  |  |  |  |  |  | 0.0087 | 0.0029 | 0.0028 | 0.0265 | 0.0982 |  | 0.0521 | 0.1204 |
| 14 | 0.0721 |  | 0.0333 | 0.1715 | 0.2214 |  |  |  |  |  | 0.2232 |  | 0.0064 | x | 0.0423 | 0.0512 | 0.0321 |  |  | 0.1499 |
| 15 | 0.0356 |  | 0.0131 | 0.0668 |  |  |  |  |  |  | 0.2661 | 0.2070 | 0.0201 | 0.0060 | 0.0110 | 0.0172 | 0.0156 |  |  |  |
| 16 | 0.0236 |  | 0.0343 | 0.2424 | 0.2026 |  |  |  |  |  |  | 0.2297 | 0.0153 | 0.0124 | 0.0236 | 0.0125 | 0.1304 |  |  | 0.4804 |
| 17 | 0.0118 |  | 0.0653 | 0.3281 | 0.1172 |  |  |  |  |  | 0.1236 | 0.3359 | 0.0122 |  | 0.0064 | 0.0272 | 0.0438 |  |  | 0.1030 |
| 18 | 0.0491 |  |  |  | 0.4579 |  |  |  |  |  | 0.3718 | 0.2639 | 0.0404 | 0.0059 | 0.0097 |  |  |  |  | 0.0151 |

DystromiR miR-23a RT-qPCR relative quantity. X = sample rejected following quality control. Age is displayed in months. Dog ID shows the study name of each individual animal included in this study: dog IDs with the preface “DE50-" are DE50-MD dogs, dogs with the preface WT are wild-type dogs. White boxes show samples that were tested. Grey boxes indicate untested samples: dark grey boxes were unavailable due to animal euthanasia prior to this timepoint; light grey boxes were unavailable.

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| Dog ID | DE50-E4 | DE50-G4 | DE50-H6 | DE50-I1 | DE50-I2 | DE50-K2 | DE50-K3 | DE50-L1 | DE50-L6 | DE50-M1 | DE50-P1 | DE50-R4 | WT-E3 | WT-E5 | WT-G2 | WT-H4 | WT-J1 | WT-K4 | WT-K5 | WT-M2 |
| Age |
| 1 |  | 0.0617 | 0.0591 |  |  |  |  |  |  |  |  |  |  |  | 0.1708 | 0.0398 |  |  |  |  |
| 2 |  | 0.0341 | 0.0645 |  |  |  |  |  |  |  | 0.4017 | 0.2075 |  |  | 0.0353 | 0.0716 |  |  |  | 0.1916 |
| 3 |  | 0.1328 | 0.0208 |  | 0.1218 | 0.1027 | 0.0753 | 0.2849 | 0.1694 | 0.1241 |  |  |  |  | 0.0230 | 0.0805 | 0.0431 |  | 0.0722 | 0.1968 |
| 4 |  | x | 0.0772 | 0.0555 | 0.0611 | 0.2750 | 0.8263 | 0.5806 | 0.0444 | 0.0100 | 0.2780 | 0.5387 |  |  | x | 0.1192 | 0.0552 |  | x | 0.0753 |
| 5 |  | 0.0464 | 0.3231 | 0.1019 | 0.0413 |  | 0.0362 | 0.3339 | 0.0455 | 0.0380 | 0.1464 | 0.1255 |  |  | 0.0435 | 0.0103 | 0.0862 |  |  | 0.0802 |
| 6 | 0.1613 | 0.0710 | 0.1727 | 0.3182 | 0.2209 |  | 0.0920 | 0.0249 | 0.0649 | 0.0258 | 0.2346 |  | 0.0142 | x | 0.2899 | 0.0055 | 0.0586 |  | 0.1640 | 0.0656 |
| 7 | 0.0488 | 0.2849 | 0.0903 |  | 0.2219 |  |  | 0.0803 | 0.0614 |  | 0.2096 | 0.3249 | 0.0085 | 0.0213 | 0.0782 | 0.0903 | 0.0831 | 0.0118 | 0.0398 | 0.0448 |
| 8 | 0.0398 | 0.0221 | 0.0065 | 0.0410 | 0.0616 |  |  |  |  |  | 0.2890 | 0.0200 | 0.0277 | 0.3800 | 0.0293 | 0.0106 | x |  | 0.2797 | 0.1080 |
| 9 | 0.1873 | 0.1242 | 0.5227 | 0.1225 | 0.0697 |  |  |  |  |  | 0.1048 |  | 0.0847 | 0.4315 | 0.0637 | 0.0454 | x | 0.0246 | 0.0462 |  |
| 10 | 0.0823 | 0.0439 | 0.0860 | 0.3886 | 0.0158 |  |  |  |  |  | 0.9240 | 0.0301 | 0.1624 | 0.0366 | 0.0243 | 0.0384 | 0.0224 | 0.0428 | 0.2338 | 0.0582 |
| 11 | x | 0.1623 | 0.0844 | 0.0500 | 0.0545 |  |  |  |  |  | 0.1223 | 0.0488 | 0.0219 | 0.0290 | 0.0437 | 0.0091 | 0.0394 |  | 0.1696 | 0.1107 |
| 12 | 0.0609 |  | 0.0584 | 0.0582 | 0.0427 |  |  |  |  |  | 0.1581 | 0.4745 | 0.0325 | 0.0211 | 0.0683 | 0.0155 | 0.0650 |  |  | 0.1227 |
| 13 | 0.0776 |  | 0.0974 | 0.0898 | 0.0469 |  |  |  |  |  |  |  | 0.0807 | 0.0136 | 0.0083 | 0.1331 | 0.1299 |  | 0.1356 | 0.3016 |
| 14 | 0.1581 |  | 0.0445 | 0.1082 | 0.3223 |  |  |  |  |  | 0.1412 |  | 0.0276 | x | 0.1056 | 0.1638 | 0.0292 |  |  | 0.2662 |
| 15 | 0.0689 |  | 0.0539 | 0.1377 |  |  |  |  |  |  | 0.2289 | 0.1316 | 0.1096 | 0.0196 | 0.0461 | 0.0366 | 0.0310 |  |  |  |
| 16 | 0.0410 |  | 0.0143 | 0.0717 | 0.1107 |  |  |  |  |  |  | 0.1205 | 0.1406 | 0.1501 | 0.0632 |  | 0.2496 |  |  | 1.0000 |
| 17 | 0.0183 |  | 0.1734 | 0.2998 | 0.0995 |  |  |  |  |  | 0.0694 | 0.2704 | 0.0375 |  | 0.0202 | 0.1912 | 0.0879 |  |  | 0.1863 |
| 18 | 0.0866 |  |  |  | 0.6643 |  |  |  |  |  | 0.2366 | 0.1196 | 0.1498 | 0.0364 | 0.0327 |  |  |  |  | 0.0214 |

DystromiR miR-223 RT-qPCR relative quantity. X = sample rejected following quality control. Age is displayed in months. Dog ID shows the study name of each individual animal included in this study: dog IDs with the preface “DE50-" are DE50-MD dogs, dogs with the preface WT are wild-type dogs. White boxes show samples that were tested. Grey boxes indicate untested samples: dark grey boxes were unavailable due to animal euthanasia prior to this timepoint; light grey boxes were unavailable.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Dog ID | DE50-E4 | DE50-G4 | DE50-H6 | DE50-I1 | DE50-I2 | DE50-K2 | DE50-K3 | DE50-L1 | DE50-L2 | DE50-M1 | WT-E5 | WT-G2 | WT-H4 | WT-J1 | WT-K4 | WT-K5 | WT-M2 |
| Age |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  | 1.070 | 0.655 | 1.032 | 0.877 | 1.113 | 1.102 | 0.883 | 1.274 | 1.050 |  |  |  | -0.912 | -1.043 | -1.017 | -0.816 |
| 6 |  | 0.822 | 1.027 | 0.874 | 1.139 |  | 1.446 | 0.988 |  | 1.404 |  | -1.013 | -0.664 | -0.837 |  | -1.242 | -1.278 |
| 9 | 0.523 | 1.001 | 0.673 |  | 0.796 |  |  |  |  |  | -1.506 | -1.354 | -1.033 |  |  | -1.457 |  |
| 12 | 0.686 |  | 0.670 |  | 0.402 |  |  |  |  |  | -1.266 | -1.238 | -0.857 |  |  |  | -1.094 |
| 15 | 0.808 |  | 0.464 | 0.433 |  |  |  |  |  |  | -1.078 | -1.058 | -0.900 | -0.864 |  |  |  |
| 18 | 0.533 |  |  |  | 0.552 |  |  |  |  |  | -0.920 | -0.848 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Principal component analysis (arbitrary units). Age is displayed in months. Dog ID shows the study name of each individual animal included in this study: dog IDs with the preface “DE50-" are DE50-MD dogs, dogs with the preface WT are wild-type dogs. White boxes show samples that were tested. Grey boxes indicate untested samples: dark grey boxes were unavailable due to animal euthanasia prior to this timepoint; light grey boxes were unavailable.