|  | misMONog2 +12 $\mathrm{ng} / \mu \mathrm{l}$ pNog2-EGFP (control) | MONog2 +12 ng/ul pNog2-EGFP | MONog2 +4 ng/ul pNog2-tALK4 $+8 \mathrm{ng} / \mu \mathrm{l}$ pNog2-EGFP | MONog2 $+12 \mathrm{ng} / \mathrm{\mu l}$ pNog2-tALK4 | MONog2 $+4 \mathrm{ng} / \mathrm{\mu l}$ pNog2-tBR $+8 \mathrm{ng} / \mathrm{\mu l}$ pNog2-EGFP | MONog2 +12 $\mathrm{ng} / \mathrm{\mu l} \mathrm{pNog} 2-$ tBR | MONog2 +4 $\mathrm{ng} / \mathrm{\mu l}_{\mathrm{l}}^{\mathrm{pNog} 2-}$ Dkk1 $+8 \mathrm{ng} / \mathrm{\mu l}$ pNog2-EGFP | MONog2 <br> +12 ng/ $\mu \mathrm{l}$ pNog2Dkk1 | MONog2 $+4 \mathrm{ng} / \mu \mathrm{l}$ pNog2-tALK4 +4 $\mathrm{ng} / \mu \mathrm{l}$ pNog2-tBR $+4 \mathrm{ng} / \mathrm{\mu l} \mathrm{pNog} 2-$ Dkk1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 65,027 | 18,466 | 51,276 | 0,469 | 17,151 | 44,633 | 56,892 | 26,834 | 44,829 |
| 2 | 34,832 | 45,217 | 46,939 | 1,335 | 42,062 | 25,158 | 45,017 | 53,418 | 47,522 |
| 3 | 65,525 | 11,118 | 62,906 | 29,124 | 0,001 | 21,345 | 78,737 | 68,715 | 61,948 |
| 4 | 58,845 | 29,020 | 6,768 | 6,400 | 3,722 | 6,883 | 50,533 | 85,853 | 65,611 |
| 5 | 58,775 | 45,360 | 20,873 | 31,445 | 46,888 | 42,871 | 52,530 | 54,498 | 71,674 |
| 6 | 60,002 | 59,561 | 48,942 | 0,460 | 43,562 | 0,020 | 66,430 | 30,460 | 44,508 |
| 7 | 62,793 | 40,557 | 45,586 | 7,815 | 29,940 | 11,124 | 63,631 | 26,999 | 60,752 |
| 8 | 60,369 | 48,715 | 37,657 | 0,657 | 31,107 | 15,362 | 12,629 | 50,718 | 50,820 |
| 9 | 72,912 | 19,776 | 49,257 | 3,552 | 46,155 | 32,034 | 49,773 | 21,121 | 68,236 |
| 10 | 64,355 | 69,390 | 50,672 | 17,063 | 27,445 | 18,025 | 50,566 | 38,251 | 63,730 |
| 11 | 48,519 | 36,176 | 45,721 | 6,184 | 48,066 | 45,376 | 22,229 | 58,500 | 37,169 |
| 12 | 65,840 | 40,275 | 46,983 | 19,630 | 39,331 | 35,489 | 29,428 | 55,239 | 66,965 |
| 13 | 60,395 | 44,058 | 61,656 | 5,545 | 55,884 | 44,081 | 80,910 | 26,917 | 48,671 |
| 14 | 75,498 | 51,503 | 58,961 | 26,785 | 16,188 | 0,056 | 0,770 | 49,792 | 64,688 |
| 15 | 60,854 | 51,988 | 31,526 | 62,682 | 35,975 | 18,897 | 35,965 | 50,510 | 60,003 |
| 16 | 50,728 | 41,447 | 58,215 | 35,610 | 34,750 | 59,237 | 59,434 | 34,525 | 69,080 |
| 17 | 68,022 | 47,541 | 52,094 | 18,986 | 28,170 | 50,464 | 43,779 | 54,319 | 65,704 |
| 18 | 65,889 | 18,320 | 36,770 | 32,710 | 29,428 | 6,755 | 44,589 | 56,182 | 60,421 |
| 19 | 74,452 | 27,054 | 44,725 | 6,766 | 33,651 | 29,597 | 66,267 | 27,039 | 62,391 |
| 20 | 82,832 | 61,305 | 30,922 | 53,088 | 28,980 | 55,016 | 62,232 | 21,461 | 58,668 |
| 21 | 60,413 | 34,690 | 59,141 | 30,847 | 44,572 | 31,009 | 22,984 | 30,653 | 64,576 |
| 22 | 79,620 | 11,112 | 41,996 | 4,994 | 15,847 | 15,340 | 54,008 | 26,639 | 40,552 |
| 23 | 69,589 | 53,238 | 58,011 | 12,649 | 22,355 | 0,121 | 47,078 | 60,056 | 46,597 |
| 24 | 13,024 | 54,110 | 63,153 | 28,891 | 14,270 | 38,261 | 39,004 | 17,421 | 51,047 |
| 25 | 74,064 | 1,681 | 52 | 41,317 | 53,238 | 76,198 | 32,876 | 23,325 | 46,837 |
| 26 | 56,728 | 18,672 | 17,797 | 29,807 | 27,730 | 14,518 | 52,490 | 30,528 | 8,168 |
| 27 | 83,949 | 25,717 | 42,812 | 38,722 | 43,765 | 0,013 | 41,135 |  | 72,847 |
| 28 | 58,875 | 26,193 | 42,827 | 20,181 | 42,829 | 9,574 | 67,345 |  | 83,698 |
| 29 | 47,798 | 27,290 | 32,599 | 13,103 | 22,010 | 27,401 | 76,164 |  | 61,323 |
| 30 | 59,661 | 29,803 | 37,725 | 29,766 | 33,083 | 39,538 | 36,494 |  | 49,891 |
| 31 | 70,296 | 30,659 | 30,377 | 34,100 | 42,377 | 44,466 | 54,863 |  | 42,047 |
| 32 | 71,781 | 31,223 | 42,03 | 48,012 | 32,322 | 13,541 | 38,307 |  | 44,872 |
| 33 | 73,120 | 36,296 | 66,278 | 29,044 | 7,331 | 5,802 | 5,937 |  | 84,344 |
| 34 | 16,730 | 39,272 | 38,074 | 29,627 | 38,489 | 0,002 | 41,638 |  | 58,345 |


| 72,822 | 39,470 | 37,537 | 27,753 | 32,567 | 18,156 | 42,744 | 35,401 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 68,139 | 39,725 | 40,153 | 40,927 | 42,262 | 11,137 | 23,163 | 43,095 |
| 54,581 | 42,403 | 33,378 | 26,872 | 49,840 | 28,540 | 44,514 | 53,711 |
| 58,121 | 43,195 | 39,417 | 12,595 | 31,618 | 25,975 | 35,814 | 76,933 |
| 58,181 | 51,311 | 45,425 | 0,216 | 42,010 | 19,354 | 40,634 | 83,028 |
| 60,073 | 56,424 | 43,707 | 62,664 | 43,022 | 22,592 | 54,137 | 45,035 |
| 67,999 | 57,708 | 44,968 | 37,652 | 32,400 | 8,565 | 0,402 | 52,277 |
| 54,339 | 67,409 | 63,141 |  |  | 10,768 | 42,100 | 47,050 |
| 56,480 | 3,183 | 43,746 |  |  | 15,957 | 53,665 | 63,225 |
| 61,619 | 36,000 | 40,506 |  |  | 10,360 | 49,973 | 69,217 |
| 64,586 | 35,082 | 64,047 |  |  | 69,734 | 0,051 | 45,232 |
| 56,109 | 28,506 | 32,886 |  |  | 16,491 | 29,711 | 62,568 |
| 75,318 | 2,734 | 47,719 |  |  | 7,577 | 66,308 | 24,518 |
| 52,103 | 38,635 | 42,428 |  |  | 23,653 | 45,687 | 55,823 |
| 77,502 | 46,918 | 10,251 |  |  | 18,014 | 46,263 | 73,827 |
| 63,058 | 0,775 | 37,867 |  |  | 36,817 | 55,820 | 48,960 |
| 55,567 | 47,637 | 35,081 |  |  | 37,153 | 45,606 | 71,032 |
| 66,610 | 49,460 | 50,431 |  |  | 7,532 | 42,851 | 54,389 |
| 53,867 | 49,720 | 40,501 |  |  |  | 70,679 | 47,204 |
| 51,437 | 61,996 | 53,52 |  |  |  | 57,559 | 49,716 |
| 65,312 | 20,230 | 52,541 |  |  |  | 25,155 | 80,095 |
| 70,740 | 15,836 | 48,775 |  |  |  |  |  |
| 48,217 | 38,242 | 18,157 |  |  |  |  |  |
| 58,268 | 0,068 | 38,04 |  |  |  |  |  |
| 65,264 | 26,268 | 51,181 |  |  |  |  |  |
| 48,887 | 31,732 | 48,387 |  |  |  |  |  |
| 61,216 | 0,919 | 43,896 |  |  |  |  |  |
| 66,240 | 15,928 | 40,561 |  |  |  |  |  |
| 45,598 | 33,877 | 24,745 |  |  |  |  |  |
| 69,509 | 59,306 | 14,63 |  |  |  |  |  |
| 93,091 | 0,541 | 27,696 |  |  |  |  |  |
| 59,542 | 9,136 | 21,294 |  |  |  |  |  |
| 60,517 | 4,276 | 39,524 |  |  |  |  |  |
| 71,822 | 16,411 | 68,043 |  |  |  |  |  |
| 64,274 | 17,824 | 49,478 |  |  |  |  |  |
| 67,137 | 33,616 | 44,251 |  |  |  |  |  |
| 53,646 | 45,420 | 44,21 |  |  |  |  |  |
| 62,328 | 45,760 | 48,204 |  |  |  |  |  |
| 75,883 | 26,202 | 71,378 |  |  |  |  |  |


| 74 | 70,338 | 28,096 | 43,206 |
| :---: | :---: | :---: | :---: |
| 75 | 68,865 | 48,563 | 42,18 |
| 76 | 68,557 | 28,488 | 76,428 |
| 77 | 67,372 | 47,711 | 33,966 |
| 78 | 67,127 | 26,557 |  |
| 79 | 65,744 | 30,373 |  |
| 80 | 65,571 | 34,927 |  |
| 81 | 65,375 | 25,396 |  |
| 82 | 64,829 | 24,100 |  |
| 83 | 61,133 | 43,964 |  |
| 84 | 60,768 | 27,454 |  |
| 85 | 57,998 | 44,971 |  |
| 86 | 56,956 | 22,152 |  |
| 87 | 54,117 | 42,108 |  |
| 88 | 53,566 | 38,915 |  |
| 89 | 51,875 | 33,208 |  |
| 90 | 49,819 | 36,842 |  |
| 100 | 48,652 | 23,845 |  |
| 101 | 50,683 | 31,158 |  |
| 102 | 77,589 | 10,862 |  |
| 103 | 51,687 | 0,018 |  |
| 104 | 63,411 | 29,426 |  |
| 105 | 64,552 | 37,932 |  |
| 106 | 45,910 | 36,187 |  |
| 107 | 43,992 | 6,714 |  |
| 108 | 65,040 | 24,739 |  |
| 109 | 82,276 | 30,469 |  |
| 110 | 83,382 | 26,549 |  |
| 111 | 58,617 | 8,79 |  |
| 112 | 34,942 | 55,674 |  |
| 113 | 51,522 | 22,083 |  |
| 114 | 63,192 | 38,312 |  |
| 115 | 38,038 | 37,418 |  |
| 116 | 67,590 | 51,857 |  |
| 117 | 80,815 | 31,811 |  |
| 118 | 82,619 | 25,885 |  |
| 119 | 35,145 | 27,717 |  |
| 120 | 81,160 | 42,72 |  |
| 121 | 75,965 | 40,681 |  |






 mean values; (3) IDs of all individual embryos in all series of experiments were normalized by using the corresponding correction coefficients.

