



| Clone ID | P-value | Dog chromosome location | Association | Human chromosome location | Gene Symbol | Gene Description | Human cytogenetic assignment (Entrez) |
|-------------|----------|-------------------------|------------------|---------------------------|---------------------|---|---------------------------------------|
| CH82-328G09 | 3.15E-06 | chr6:10769537-10958045 | ↑ gain in Boxers | chr7:101765722-102040019 | <i>CUX1</i> | cut-like homeobox 1 | 7q22.1 |
| | | | | | <i>SH2B2</i> | SH2B adaptor protein 2 | 7q22 |
| | | | | | <i>SPDYE6</i> | speedy homolog E6 (Xenopus laevis) | 7q22.1 |
| | | | | | <i>PRKRIP1</i> | PRKR interacting protein 1 (IL11 inducible) | 7q22.1 |
| CH82-122K24 | 3.72E-06 | chr6:22926270-23121993 | ↑ gain in Boxers | chr16:26282722-26533560 | | | |
| CH82-313C15 | 8.24E-06 | chr12:39896138-40108358 | ↑ gain in Boxers | chr6:75960778-76188621 | <i>TMEM30A</i> | transmembrane protein 30A | 6q14.1 |
| | | | | | <i>FILIP1</i> | filamin A interacting protein 1 | 6q14.1 |
| CH82-335E11 | 8.24E-06 | chr20:9093097-9273156 | ↑ gain in Boxers | chr3:12325450-12527804 | <i>PPARG</i> | peroxisome proliferator-activated receptor gamma | 3p25 |
| | | | | | <i>TSEN2</i> | tRNA splicing endonuclease 2 homolog (<i>S. cerevisiae</i>) | 3p25.2 |
| CH82-197B21 | 8.24E-06 | chr31:32547604-32755647 | ↑ gain in Boxers | chr21:36433856-36682123 | | | |
| CH82-330O21 | 8.24E-06 | chr31:35133151-35336638 | ↑ gain in Boxers | chr21:39290645-39488665 | <i>DSCR4</i> | Down syndrome critical region gene 4 | 21q22.2 |
| CH82-188N02 | 8.24E-06 | chr31:37676109-37882008 | ↑ gain in Boxers | chr21:42164751-42411140 | <i>DSCAM</i> | Down syndrome cell adhesion molecule | 21q22.2 |