



Figure 6. The volcano plot provides a summary of test statistics for differential expression of genes in the tumor survey. The null hypothesis is no differential expression (M0) and the alternative is differential expression across the groups defined by strains (M1). Under model M1, there are four relative expression values (VG) and the square root of the sum of squared VGs is shown on the x-axis of the figure. A vertical bar indicates the 0.05 multiple test adjusted threshold for test F3. The y-axis is negative base 10 logarithm of the p-value for the per gene F-test (F1). A horizontal bar indicates the nominal 0.001 threshold for F1. Genes that are significant at the 0.05 multiple test adjusted level by F2 test are shown in red. In this analysis, each spot was treated as a separate gene whereas the each gene is actually by two spots on the array. Some pairing of points is apparent in the figure.