

Protein Kinase GFC-Transfection Array Panel I

Effect of genes in the Protein Kinases GFC-Transfection Array on Activity of p16-Luc Reporter

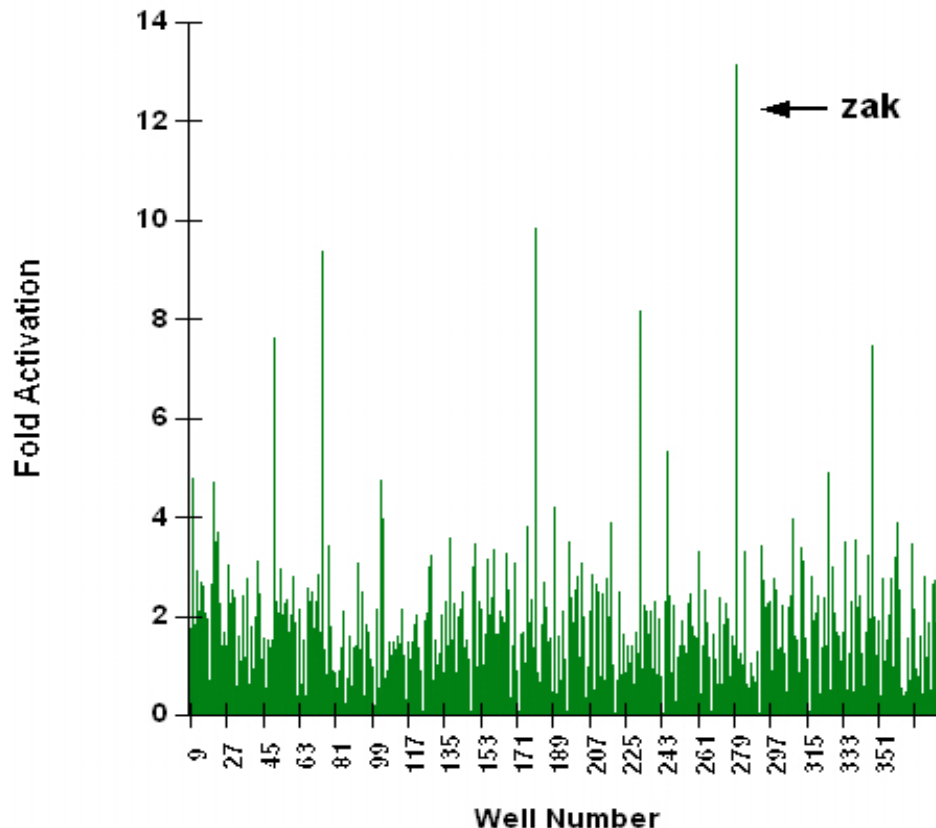


Figure 1. Effects of genes from the protein kinases GFC-Transfection Array on the activity of the CDKN2A-promoter (p16-luc) measured by a reporter gene assay.

The Protein Kinase GFC-Transfection Array was tested for activation of a reporter plasmid containing the cyclin-dependent kinase inhibitor 2A (CDKN2A or p16) promoter driving expression of luciferase (p16-Luc). The array was reverse transfected to HEK293T cells using TurboFectin 8.0, and luciferase activity was scored 48 hours later using Britelite luciferase substrate (Perkin Elmer). Luciferase activity for each of the 352 cDNAs in the array is plotted against the sample number. The cDNA initiating the highest activation of the reporter is indicated. Additional genes (known and novel interactors) that activate the p16 promoter or inhibit its intrinsic activity were also detected and are indicated on the graph.

Effect of genes in the Protein Kinase GFC-Transfection Array on activity of the p21-Luc reporter

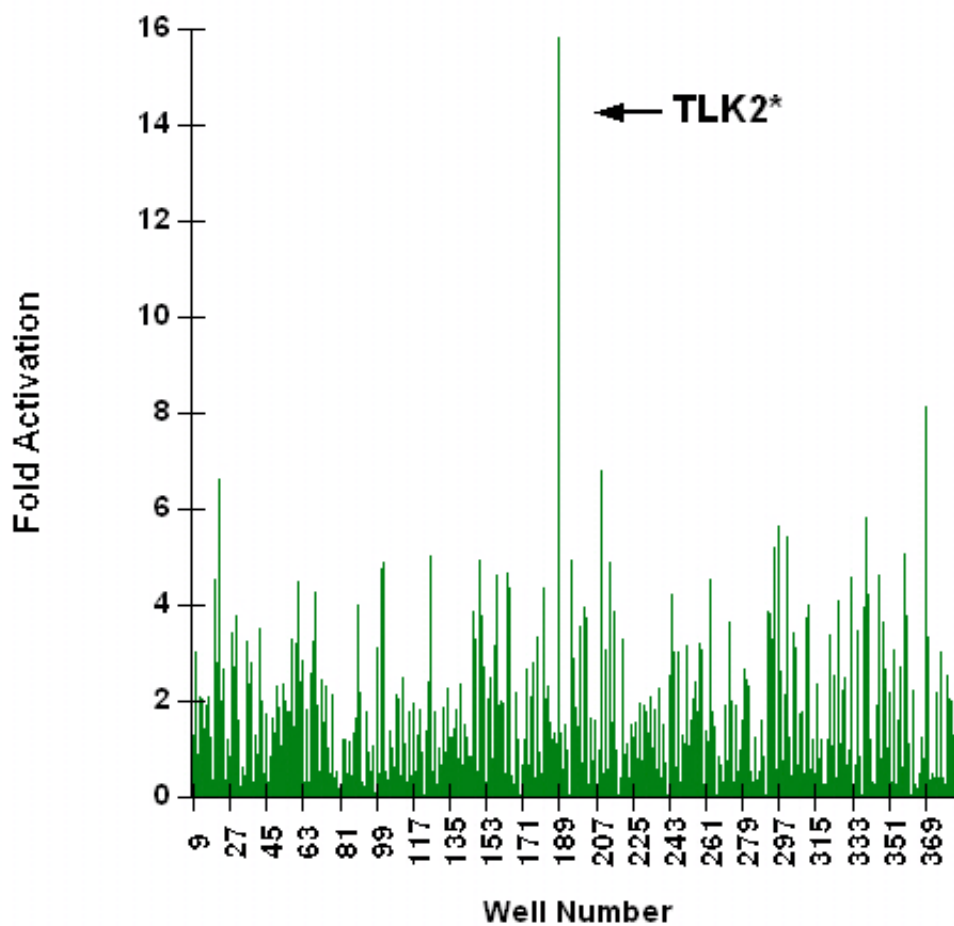


Figure 2. Effects of genes from the protein kinases GFC-Transfection Array on the activity of the CDKN1A-promoter (p21-luc) measured by a reporter gene assay.

The Protein Kinase GFC-Transfection Array was tested for activation of the cyclin-dependent kinase inhibitor 1A (CDKN1A or p21), a known inhibitor of the activity of CDK2 or CDK4 kinase complexes suggested to be involved in tumor suppression. HEK293T cells were reverse transfected with TurboFectin 8.0 and the luciferase activity was scored 48 hours later with BriteLite luciferase reagent (PerkinElmer). The highest activator is marked. Additional genes (known and novel) that activate the CDKN1A promoter or inhibit its intrinsic activity were also detected

**Effect of genes in the Protein Kinases
GFC-Transfection Array on viability of HEK293T cells**

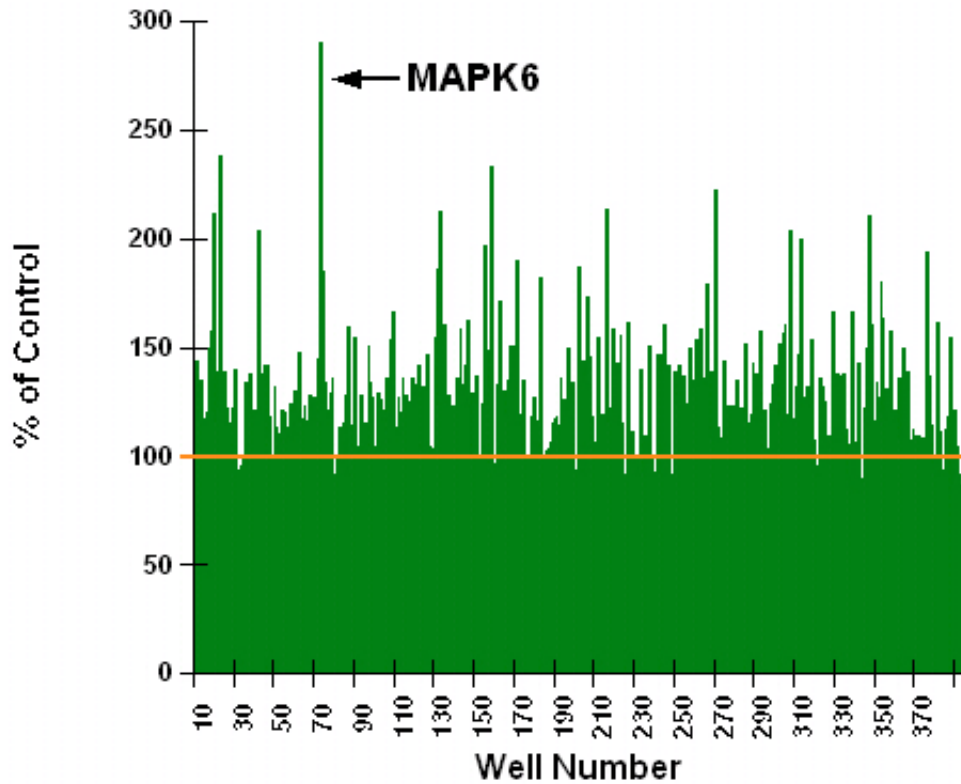


Figure 3. Effect of genes from the protein kinases GFC-Transfection Array on viability and proliferation of HEK293T cells.

The effect of protein kinases genes on the viability of HEK293T cells was determined. Five thousand (5×10^3) HEK293T cells were used in a reverse transfection with TurboFectin 8.0. Cell viability was tested 48 hours later with the ATPlite 1step assay (PerkinElmer). Several genes were shown to promote cell proliferation / viability by up to 300 %.