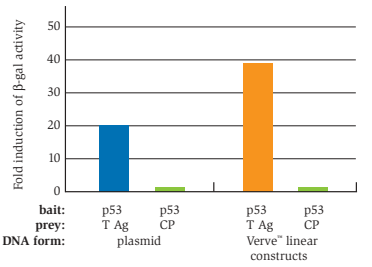
Rapid and accurate mammalian two-hybrid analysis

Achieve two-hybrid analysis results in a native mammalian environment faster with the Verve™ Mammalian Two-Hybrid Kit with TOPO® Tools Technology. This unique method replaces time-consuming traditional cloning steps with a 10-minute reaction. You'll quickly generate bait and prey constructs, saving up to four days of research time.

a better system

Mammalian two-hybrid systems enable the detection and validation of protein-protein interactions in a native environment. Typically, the gene encoding the protein of interest ("bait") is fused to a DNA binding domain. The gene encoding the potential interacting partner ("prey") is fused to an activation domain. These constructs are then co-transfected into a mammalian host along with a reporter construct. When the "bait" and "prey" interact, the reporter gene is expressed. Using conventional mammalian two-hybrid methods, you'll spend days cloning genes to generate the bait and prey constructs. The Verve™ Mammalian Two-Hybrid Kit with TOPO® Tools Technology replaces these time-consuming steps with PCR and a 10-minute TOPO® Joining reaction. You'll create linear "bait" and "prey" constructs in one day and have results within 24-72 hours.

figure 2 - detection of the p53:large T antigen interaction

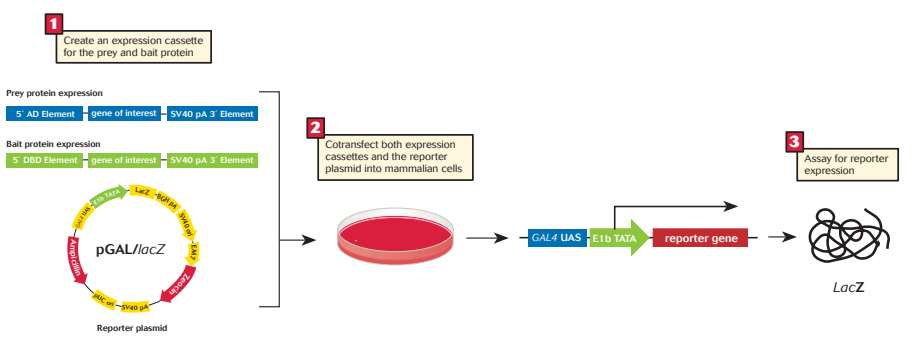


The p53-bait was tested with either SV40 T Ag-prey, or a negative-control CP-prey, as indicated. Bait and prey constructs were co-transfected using Lipofectamine™ 2000 Reagent. β-galactosidase activity was measured 48 hours post transfection in a CHO cell line containing the stably integrated pGAL/*lacZ* reporter gene construct.

a faster procedure

Using TOPO® Tools Technology, there are no ligations, no vector manipulations, no cloning, and no *E. coli* transformations, saving days of time. Simply PCR amplify your "bait" and "prey" genes, join the "bait" product to the $P_{SV40/GAL4}$ 5´ and SV40 pA 3´ elements and the "prey" product to the $P_{SV40/VP16}$ 5´ and SV40 pA 3´ elements in a 10-minute TOPO® Joining reaction, and co-transfect the linear constructs and a reporter plasmid into the mammalian host (figure 1).

figure 1 - overview of the Verve™ Mammalian Two-Hybrid Kit method



accurately detect interactions

To demonstrate accurate detection of protein interactions, the Verve™ Two-Hybrid Kit and a plasmid-based system were used to detect the known interaction between p53 and the large T antigen in CHO cells. The positive interaction was detected in both systems (figure 2), but results were achieved days earlier using the Verve™ Kit.

easy high-throughput

Since there are no time-consuming cloning steps, you can easily adapt the Verve™ Two-Hybrid procedure to a high-throughput format and analyze hundreds of interactions.

speed to two-hybrid analysis

Get faster interaction results with the Verve™ Mammalian Two-Hybrid Kit with TOPO® Tools Technology. Order today.

Product	Quantity	Cat. no.
Verve™ Mammalian Two-Hybrid Kit with TOPO® Tools Technology	100 rxns	T501-100