

The Fastest Way to Achieve High-Level Expression in Mammalian Cells

TAP Express™ Rapid PCR Expression System

The TAP Express Rapid PCR Expression System is the first available technology that utilizes transcriptionally active PCR fragments for high-level protein expression. It allows you to save days, weeks, and even months of work from gene expression studies. Traditional expression protocols require the gene-of-interest to be cloned into an expression vector, bacteria to be transformed, colonies to be screened, and plasmids to be isolated and purified. With the TAP Express system, all this work is avoided by making PCR fragments transcriptionally active through the addition of a viral promoter and terminator. This eliminates the need for cloning, transformation, and plasmid preparations, allowing you to go from gene of interest to transfection in as little as one day.

How TAP Express Works.

TAP Express utilizes a fast, simple, and reliable process to make any gene transcriptionally active. Through the technique of nested PCR, the TAP Express system adds a CMV promoter/enhancer sequence

and an SV40 terminator sequence to any gene of interest in two sequential PCR steps (Figure 1). The result is a linear expression cassette that can be directly transfected *in vitro* or injected *in vivo* with no further manipulation.

High-Level, Versatile Expression

Gene expression results obtained with the TAP system are equivalent to the most popular commercially available plasmid vectors. Moreover, TAP Express gives high-level expression results in a wide variety of

Figure 1. How TAP Express Works

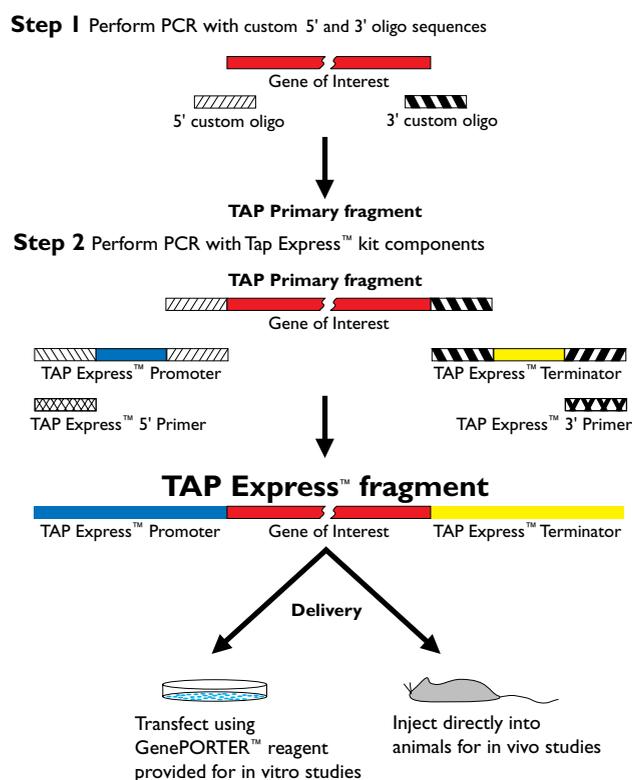
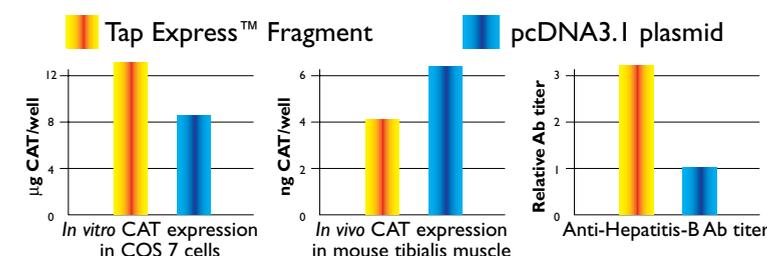


Figure 2. Comparison of TAP Express fragment and leading commercial plasmid expressing GFP in COS-7 Cells



Figure 3. In Vitro/In Vivo Comparison of TAP Express™ fragment and pcDNA3.1 plasmid (Invitrogen)



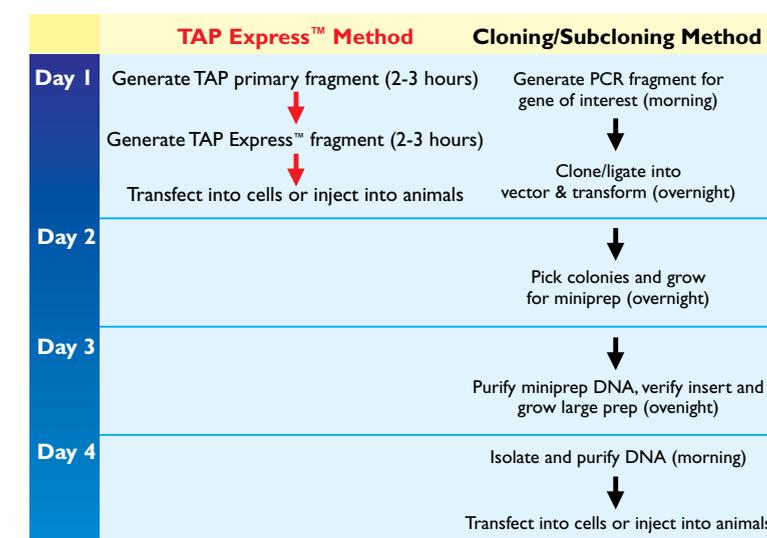
Ideal for High Throughput.

Because of the speed with which gene expression studies are completed with the TAP Express system, researchers studying multiple genes can particularly benefit from the high-throughput potential of the TAP Express system. For example, to express just 10 genes using traditional cloning techniques would take months of work. Using TAP Express, 10 genes can be PCR amplified simultaneously and be ready for expression in as little as one day. (Figure 4). Together with this dramatic increase in the speed of expression studies, TAP Express allows for a corresponding decrease in the cost of expression experiments. Figure 4 compares the average cost to express a typical gene-of-interest, between the traditional cloning method and the TAP Express system. As you can see, the cost savings are substantial.

Revolutionary Technology.

Offering tremendous speed, simplicity, reliability, and cost-savings, the TAP Express system is a revolutionary step forward in gene expression technology. Join the revolution and order your TAP Express Kit today.

Figure 4. Time Comparison of TAP vs. Traditional Cloning



applications – both *in vitro* and *in vivo*. Figures 2 and 3 show the typical expression results that can be expected from the TAP Express system. Additionally, to facilitate a wider variety of gene expression studies, we have developed a modified version of the TAP Express Kit called epiTAP Express, which allows for the protein-of-interest to be

joined to an N-terminal HA tag (Tyr-Pro-Tyr-Asp-Val-Pro-Asp-Tyr-Ala) for fast and easy immunodetection of encoded fusion proteins.

Product	Quantity	Catalog no.	Price
TAP Express™ Rapid Gene Expression System	100 Reactions	TAP010110	\$350
EpiTAP Express™ (HA) Kit	100 Reactions	TAP010120	\$350