SynapSys
We Bridge The Gap

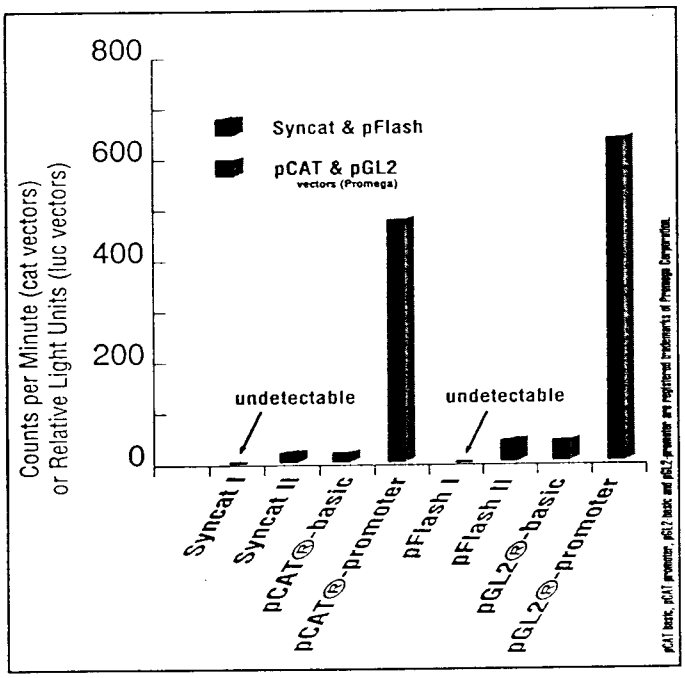
Introducing:

Multifunctional Cat & Luciferase (Luc)

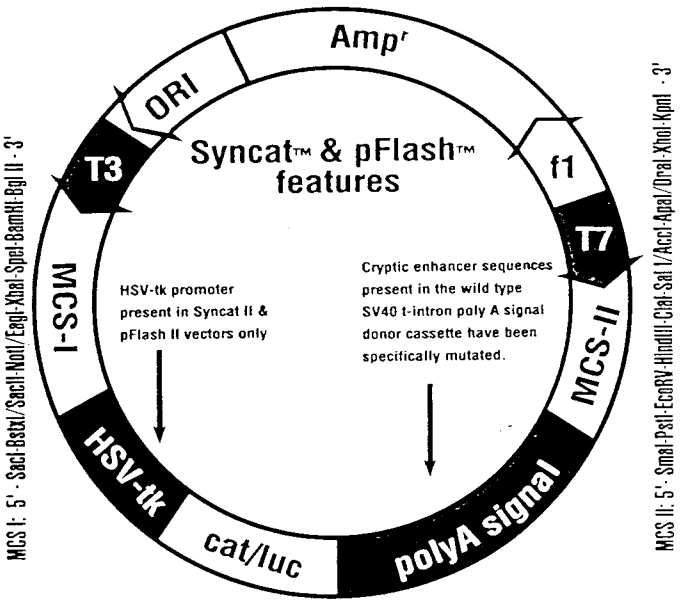
reporter gene vectors

The Syncat™ and pFlash™ are CAT and LUC reporter gene plasmids with a difference:

- No Cryptic Enhancer Activity - gives very high Signal : Noise ratio (near zero background).
- Convenient Nested Deletion with direct M13/T3-T7 sequencing.
- Reliable Heterologous Promoter - HSV-tk minimal promoter instead of the less reliable SV40 basal promoter.
- Versatility of Cloning Sites.
- ssDNA recovery for Site-Directed Mutagenesis.



Comparison of background activity in Syncat and pFlash vectors relative to comparable vectors of Promega Corporation containing an unmodified SV40 t-intron derived polyA signal.



No Cryptic Enhancers or Repressor sites:

The generic donor for the polyadenylation signal used in every commercially available reporter gene vector is the SV40 t-intron. However, the Syncat™ & pFlash™ vectors have been ***modified*** to ***eliminate*** the cryptic enhancer sequences present in the wild-type t-intron. This is the most important feature for transcription biologists and is not present in any other commercially available vector in this category!!

Use of Reliable Heterologous Promoters:

The heterologous promoter of choice in the Syncat II™ and pFlash II™ is the TATA-containing minimal promoter derived from the Herpes simplex virus thymidine kinase gene (HSV-tk). The HSV-tk promoter is a very well characterized TATA-based minimal promoter that has been shown to reliably support transcription from a wide variety of enhancers. By contrast, the SV40 basal promoter used in some commercially available reporter gene vectors has been reported to spuriously repress the enhancer activity mediated by certain cytokine inducible cis-elements. (Benech, et.al., J.Exp.Med. 1992; Vol. 176:1115-1123).

__All__ this in a high copy number plasmid that permits you to go from cloning your regulatory fragment, to generation of serial deletion mutants, to sequence verification, transfection and data analysis in the same vector that you originally started with!!

With realizations of up to 50% savings in promoter analysis time, these vectors can mean the difference between being the front-runner or the runner-up!!

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