Modular synthetic GAL1 promoter and use thereof

Abstract

The present invention relates to a nucleic acid molecule that comprises at least one synthetic GAL1 core promoter containing one or more ligand responsive operator sequences, preferably one or more FadR operator sites; at least one upstream enhancer element (UEE); and at least one nucleotide sequence encoding for one or more genes of interest; wherein the at least one synthetic GAL1 core promoter is operably linked to the at least one nucleotide sequence encoding for one or more genes of interest and the at least one UEE is operably linked to the at least one synthetic GAL1 core promoter. Also encompassed are expression systems and recombinant cells that include these nucleic acid molecules and methods that use these nucleic acid molecules, expression systems or cells.

Figure 1