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(54) **Title:** NOVEL RECOMBINATION SEQUENCES

Figure 8

Substrate Vectors	ZsGreen-positive cells [%]	Recombination positive cells* [%]	X-Mean (mock cells = 15)
pBI-26/ZsGreen (= positive control, transfection efficiency)	22.0	-	640
pBI-26/attL + pZsGreen/attB	2.3	10.5	219
pBI-26/attL.a + pZsGreen/attB	2.0	9.1	403
pBI-26/attP + pZsGreen/attR	2.3	10.5	104
pBI-26/attP + pZsGreen/attR.a	1.5	6.8	65
pBI-26/attP + pZsGreen/attR.b	1.1	5.0	73

* Percentage of recombination positive cells in successfully transfected cells whereby calculation is based on an average transfection efficiency of 22 % achieved with positive control cells.

(57) **Abstract:** The present invention relates to novel nucleotide sequences, which are variants of *att* recombination sequences, involved in sequence-specific recombination of DNA in eukaryotic cells, whereby sequence specific recombination is performed by a bacteriophage *lambda* integrase Int. Such novel att recombination sequences being e.g. *att*P.b, *att*P.a, *att*L.a,*att*R.a and *att*R.b. The present invention further relates to a method of sequence-specific recombination of DNA in eukaryotic cells, comprising the introduction of a first DNA comprising a nucleotide sequence containing at least one recombination sequence into a cell, introducing a second DNA comprising a nucleotide sequence containing at least one further recombination sequence into a cell, and performing the sequence specific recombination by a bacteriophage *lambda* integrase Int, whereby at least one of said first or second DNAs is a novel att recombination sequences being e.g. *att*P.b, *att*P.a, *att*L.a, *att*R.a and *att*R.b.

WO 2009/068645 A1

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