pJY2 plasmid

The AGA arginine codon is rarely used in *E. coli* but is common in eukaryotic genes. The low level of tRNAUCUArg can lead to low expression and misincorporation of lysine for arginine, during expression of genes containing AGA codons in *E. coli*. *E. coli* harboring pJY2 can be employed to suppress lysine misincorporation and achieve high-level expression of genes cloned into pETvectors without modification of AGA codons in the target gene sequence. pJY2 encodes tRNAUCUArg (to suppress lysine misincorporation at AGA codons) and T7 lysozyme (to depress constitutive expression of the cloned gene). For example, pJY2 allows for faithful expression of pET3a-encoded mutant ubiquitins with a high density of AGA codons (up to 14% of total codons). pJY2 can also be used as a source of tRNAUCUArg with expression systems, such as the pGEX series of vectors, that do not rely on T7 polymerase. The AGG arginine codon is also infrequently utilized in *E. coli*. As tRNAUCUArg decodes AGG when over-expressed, pJY2 is also likely to ameliorate problems associated with the expression of genes containing AGG codons.

Ordering Information

Order Online »

BML-DW8720-0005	5µg

Manuals, SDS & CofA

View Online »

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended.
Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Formulation	Liquid. In 10mM TRIS, pH 8.0, containing 1mM EDTA.

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