Vector pKLAC2 contains the strong K. lactis 
P LAC4-PBI  promoter (1), DNA encoding the K. lactis α-mating factor (α-MF) secretion domain (for secreted expression), a universal multiple cloning site (MCS), the K. lactis LAC4 transcription terminator (TT), and a fungal acetamidase selectable marker gene (amdS) expressed from the yeast ADH1 promoter (P Adh1 ). An E. coli replication origin (ori) and ampicillin resistance gene (Ap R ) are present for propagation of pKLAC2 in E. coli.

The sequence of the pKLAC2 vector (GenBank #EU196354) and additional pKLAC2 information are available at www.neb.com.

Source: pKLAC2 is isolated from E. coli strain ER2268 by a standard DNA purification procedure.

Supplied in: 10 mM Tris-HCl (pH 7.5), 1 mM EDTA.

Features of pKLAC2
- P LAC4-PBI  promoter does not express in E. coli allowing toxic genes to be cloned prior to their expression in yeast.
- Universal MCS lies downstream of α-MF secretion domain and P LAC4-PBI  promoter.
- Acetamidase expression for non-antibiotic selection in K. lactis.
- Ampicillin resistance for propagation in E. coli.

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Usage Notes: NEB 5-alpha Competent E. coli (High Efficiency) (NEB #C2987), NEB 5-alpha Electrocompetent E. coli (NEB #C2989) and NEB 5-alpha Competent E. coli (Subcloning Efficiency) (NEB #C2988) are all recommended for propagation and subcloning this vector.

References:

NOTICE TO BUYER/USER: The vector pKLAC2 is a component of an expression system that was developed from basic research at New England Biolabs, Inc. and DSM Biologics Company B.V. The buyer/user has a non-exclusive sublicense to use this system or any component thereof, including vector pKLAC2, for RESEARCH PURPOSES ONLY. A license to use this system for manufacture of clinical grade material or commercial purposes is available from New England Biolabs, Inc., or DSM Biologics Company B.V.

The K. lactis α-mating factor secretion domain is shown with a blue background. Only unique restriction sites are shown.