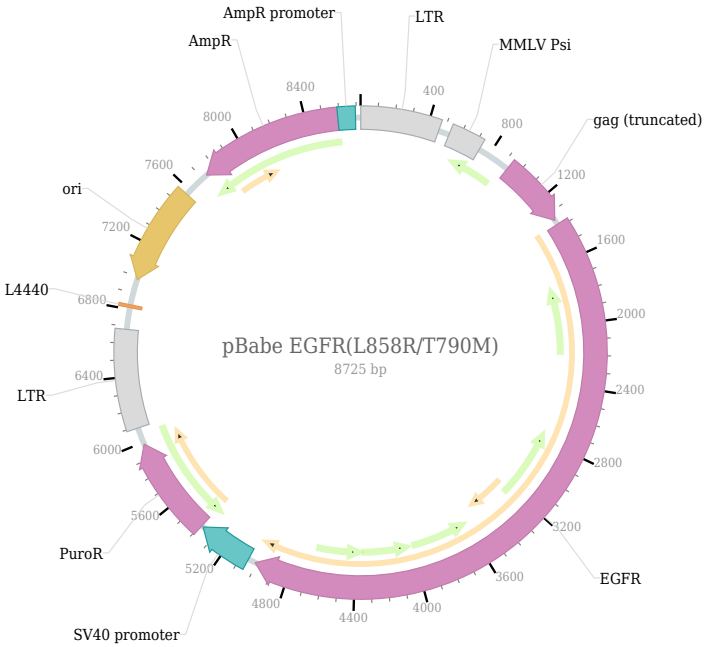
pBabe EGFR(L858R/T790M)

Vector ID	V000671
Antibiotic Resistance	Ampicillin
Length	8725 bp
Vector Type	Mammalian Expression, Retroviral

Product Information

Replication Origin	ori
Selection Marker	Puromycin
Copy Number	High Copy
Promoter	SV40
Cloning Method	Restriction Enzyme
5' Primer	pBABE 5'
Growth Strain(s)	DH10B
Comment	pBabe EGFR(L858R/T790M) is a puromycin-selectable retroviral plasmid carrying human EGFR with both activating L858R and resistance-conferring T790M double mutations. It was constructed via site-directed mutagenesis for stable ectopic EGFR expression in Ba/F3 and other mammalian cell lines by retroviral transduction. Cells transduced with this construct gain IL-3-independent growth and full resistance to erlotinib, yet remain suppressible by irreversible EGFR inhibitor HKI-272 at nanomolar concentrations. This vector serves as a core in vitro model to study acquired EGFR-TKI resistance in non-small cell lung cancer, originally reported in Yuza's 2007 Cancer Biology & Therapy work.

Vector Map



Plasmid Resuspension Protocol

1. Centrifuge at 5,000×g for 5 min.
2. Carefully open the tube and add sterile water to dissolve the DNA: add 20 µl for 5 µg plasmid, and 100 µl for 100 µg plasmid.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin to concentrate the liquid at the bottom. Speed is less than 5000×g.
5. Store the plasmid at -20 ℃.