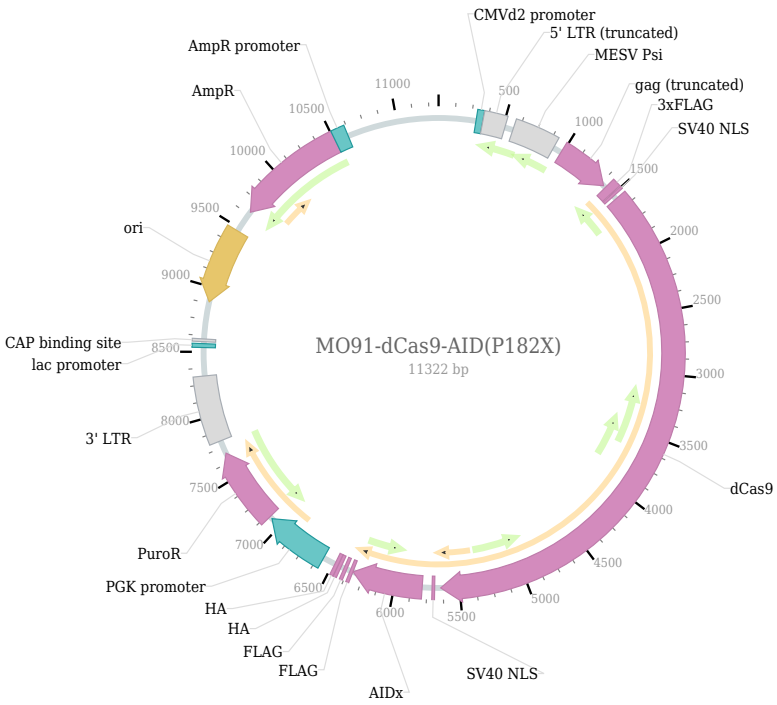
MO91-dCas9-AID(P182X)

载体编号 Vector ID	V016845
抗性 Antibiotic Resistance	Ampicillin
长度 Length	11322 bp
载体类型 Vector Type	Gene knockout
宿主 Host	Mammalian cells, Retrovirus

产品信息

复制子 Replication Origin	ori
筛选标记 Selection Marker	Puro
启动子 Promoter	mPGK
培养菌株 Growth Strain(s)	Stbl3
培养温度 Growth Temperature	37℃
备注 Comment	MO91-dCas9-AID(P182X) is an MSCV retroviral mammalian expression plasmid developed by Chang's lab for the TAM (Targeted AID-mediated mutagenesis) system, published in Nature Methods 2016. It encodes a fusion protein consisting of nuclease-dead SpCas9 (D10A/H840A dCas9) and truncated human AID-P182X (AIDx), a cytidine deaminase lacking the C-terminal nuclear export sequence to boost nuclear mutagenic activity. Flanked by SV40 NLS and 3×FLAG tags at both termini, the vector carries a PGK-puromycin resistance cassette to generate stable cell lines after retroviral transduction. Guided by sgRNAs, this fusion induces diversified C/G point mutations across target loci; co-expression of Ugi restricts edits to exclusive C→T conversions. It is primarily applied in forward genetic screening for gain-of-function variants and drug-resistance mutations in human cells.

质粒图谱



复溶方法

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 ℃.