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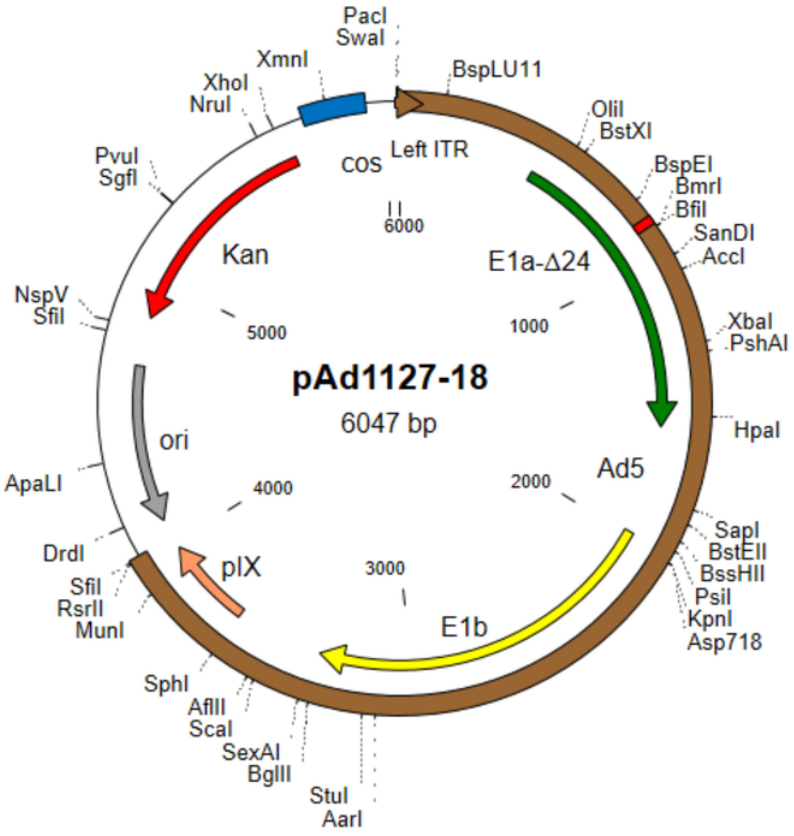
pAd1127-18

pAd1127-18 is a plasmid designed for constructing recombinant oncolytic adenovirus vectors, in combination with the AdenoQuick2.0 plasmids (pAd1128, pAd1129, pAd1130, and their derivatives). It contains PacI and SwaI sites flanking the first 4007 base pairs from the Ad5 genome (including the left ITR and packaging signal, E1A/E1B regions, and the pIX coding region).

The plasmid is characterized by the presence of a 24-bp deletion in the E1A region, which deletes amino acids "L T C H E A G F" (121-128) from the conserved region CR2. That deletion renders the E1A protein unable to bind the retinoblastoma protein pRb, which in turn can bind to the transcription factor E2F. E2F becomes unable to activate the transcription of the adenovirus E2 region and other cell-cycle genes. Therefore the ?24 adenovirus should be unable to replicate in normal cells. However it can still replicate in and lyse efficiently cancer cells characterized by inactive pRb (via constitutive phosphorylation or deletion) or by abnormal Rb control, like in gliomas (Fueyo et al, 2000. Oncogene 19,2-12).

The plasmid can be used to manipulate the E1A, E1B, and pIX coding regions. The sequences encompassing the kanamycin-resistance gene, the ? cos site, the adenovirus sequences are flanked by two SfiI restriction sites, which generate non-symmetrical sticky ends suitable for directional cloning.



Info Sheet	Sequence	Annotations
Product_Informa...d1127-18.pdf (211.5 KB)	pAd1127-18.TXT (6.1 KB)	pAd1127-18.gb (16.3 KB)