Product Information Sheet

Order: # V32602

Cloning Vector pAT153

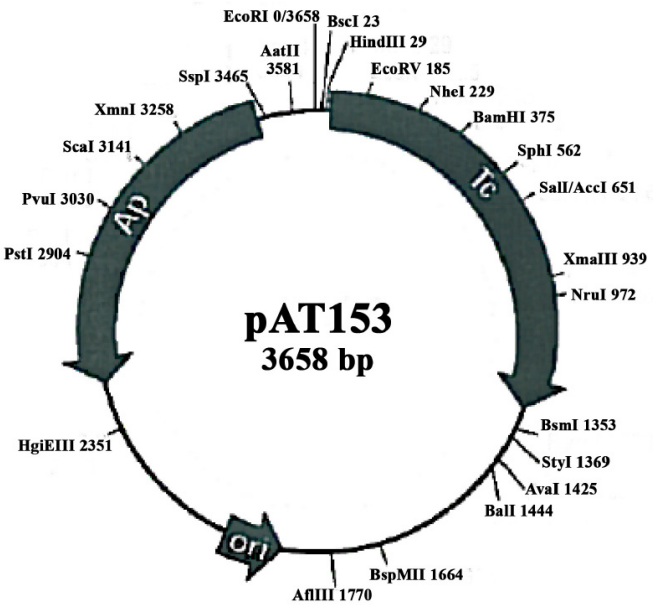
SUMMARY

shipped on blue ice; store at -20 °C

Product Description and Application

pAT153 is a deletion derivative of pBR322. The 705 nucleotide section of DNA deleted from pBR322 in the construction of pAT153 contains a region of the plasmid involved in the control of the copy number and pAT153 has a 1.5 - 3 fold higher copy number than pBR322. This allows greater quantities of plasmid and the plasmid gene products to be isolated per ml culture. The copy number of pAT153 can be increased 100 fold by using protein synthesis inhibitors such as chloramphenicol in the culture medium.
pAT153 cannot be mobilised because the bom site that defines the pBR322 origin for conjugal transfer has been deleted during the construction of pAT153. The disabled plasmid pAT153 can therefore be more readily biologically contained than pBR322.
The vector DNA is highly purified by ion exchange chromatography, cesium chloride density centrifugation and gel filtration. Our DNA preparations yield DNA with over 80% supercoiling. Therefore, the plasmid DNA is ready-to-use for enzymatic reactions and transformations.

Vector Map



Ap^R: ampicillin resistence
Tc^R: tetracycline resistence
ori: Col E1 origin of replication

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Quality Control & Technical Details

Protein contamination is monitored by measuring the ratio of absorbance at 260 and 280 nm. All preparations must have A_{260}/A_{280} greater than 1.8, indicating essentially protein-free DNA.
The absente of nuclease activity is measured by incubating plasmid DNA in restriction buffer for 16 hours. No DNA degradation should be observed.
The DNA's suitability for enzymatic manipulation is tested by restriction with a variety of endonucleases.
The correct banding pattern is confirmed by agarose gel electrophoresis.
The transformation efficiency of the plasmid DNA is measured and antibiotic resistance and blue/white selection is also confirmed.
During storage at 4 °C, plasmid DNA will slowly convert from supercoiled to relaxed circles. Although this will not affect restriction, transformation efficiency will drop.
For long-term storage keep at -20 °C. If multiple freeze-thawing cycles are likely to occur, dispense small volumes into sterile tubes and sture at -20 °C.
The plasmid DNA is supplied in TE buffer (10 mM Tris-HCl, pH 8.0, 1 mM EDTA).

References

Twigg, A.J. and Sheratt, D., *Nature*, 283 (1980) 216 - 218
Watson, N., *Gene*, 70 (1988) 399 - 403

Order Information, Shipping and Storage

Order#	Product	Quantity
V32602	pAT153 Vector DNA	25 µg
shipped on blue ice; store at -20 °C		

Contact and Support

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