Description

Designation: pDOI-5
Distribution Host: Escherichia coli MC1061; Roche 3943B

Propagation

Growth Conditions
Temperature: 37°C
Medium
ATCC® Medium 1227: LB Medium (ATCC medium 1065) with 50 mcg/ml ampicillin

Vector Information

Intact vector size: 7.240
Type of vector: plasmid
Cloning sites: BamHI EcoRI
Construction: pKCR
Host range: Escherichia coli; mouse

Features (with orientation and position when available):
- promoter: Ea, →, 5046-7240
- restriction site: BamHI, 1
- other: beta-globin 3' sequence, →, 1-1200
- restriction site: EcoRI, 638
- replicon: pMB1, ←, 3226
- marker(s): ampR, ←, 3984-4847
- Vector: pDOI-5 (plasmid)
- Promoters: Promoter Ea

References

References and other information relating to this product are available online at www.atcc.org.

Notes

Restriction digests of the clone give the following sizes (kb): BamHI~7.0; EcoRI~7.0; XbaI~7.0.
- ATCC staff

Shuttle expression vector used to target expression of a cloned gene to murine cells which normally display MHC class II molecules.

The promoter is followed by a portion of the rabbit beta-globin gene, which provides a splice and a polyadenylation signal and is thought to provide a nuclear export signal.

The BamHI cloning site may be prone to problems with cryptic splice donors leading to truncated transcripts.

Elimination of non-essential plasmid sequence before microinjection of a recombinant vector may increase expression efficiency in the mouse.

After insertion of the target gene, the pBR322 portion of the vector can be digested with one of the following enzymes to provide a linear molecule for microinjection: AatII, BglII, XbaI, NruI or HhaI.

The order of the major features in the plasmid is: Ea promoter - BamHI -
Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the *Biosafety in Microbiological and Biomedical Laboratories* from the U.S. Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes for Health.

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