P BETA GAL-END Plasmid in *Escherichia coli*

31614™

Description

Organism: *Mus musculus*, mouse
Clone type: Clone
Host: *Escherichia coli* RR1; K-12 RR1
Patent depository: This material was deposited with the ATCC Patent Depository to fulfill U.S. or international patent requirements. This material may not have been produced or characterized by ATCC. As an International Depository Authority (IDA) for patent deposits, ATCC is required to complete viability testing only at time of initial deposit of patent material. Patent deposits are made available on behalf of the Depositor when the pertinent U.S. or international patent is issued, but material may not be used to infringe the patent claims.
Patent number:
4,350,764
Technical information: ATCC Product Experience does not have technical information on patent deposits that are not produced or characterized by ATCC. Additional information can be found in the corresponding patent available from the patent holder or with the U.S. and/or international patent office.

Storage Conditions

Product format: Freeze-dried

Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

BSL 1

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Insert Information

Insert size (kb): 0.14000000000000001
Type of DNA: cDNA
Genome: mouse
Chromosome: 19
19
Target gene: beta-endorphin
Gene name: pro-opiomelanocortin-beta
Gene product: pro-opiomelanocortin-beta [Pomc2]
Gene symbol: Pomc2
Contains complete coding sequence: Unknown
Insert end: HpaII; HindIII

Vector Information

Construct size (kb): 0.0
Vector name: pbetagal

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Type of vector: plasmid
Construction: pBR322; lacOP; lacZ
Host range: *Escherichia coli*
Vector end: EcoRI
Cloning sites: EcoRI
Markers: ampR; tetR
Replicon: pMB1

Growth Conditions

Medium:
ATCC Medium 1065: LB Agar/Broth, Miller
Temperature: 37°C

Notes

Beta-endorphin can be released by trypsin after citraconic anhydride treatment to protect internal lysines. pbetagal contains the lac control region and the coding sequence for beta-galactosidase. The unique EcoRI site occurs in the codon for aa 1004 of beta-galactosidase. A HpaI/HindIII fragment of the cDNA was partially filled in in the presence of dATP and dCTP (regenerating the terminal Gln codon), trimmed with S1 nuclease and ligated to EcoRI linkers. The beta-endorphin generated by this construct is recognized by polyclonal antisera, binds to rat opiate receptors, and inhibits PGE1-stimulated adenyl cyclase activity in NG 108-15 cells. Expresses amino acids 46-91 of the beta-lipotropin portion of the ACTH / beta-lipotropin precursor, including all the amino acids for beta-endorphin, as a beta-galactosidase fusion protein under the control of the lac promoter.
- U.S. Pat. 4,350,764 dated Sept. 21, 1982

.patent
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Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: P BETA GAL-END Plasmid in *Escherichia coli* (ATCC 31614)

References

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

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