



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.

31614

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

P BETA GAL-END Plasmid in *Escherichia coli*

Product Sheet

31614

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 adenylyl 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

Beta-endorphin can be released by trypsin after citraconic anhydride treatment to protect internal lysines. pbetagal contains the lac control region and the

31614

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 adenylyl 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

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.

Warranty

The product is provided 'AS IS' and the viability of ATCC® products is warranted for 30 days from the date of shipment, provided that the customer has stored and handled the product according to the information included on the product information sheet, website, and Certificate of Analysis. For living cultures, ATCC lists the media formulation and reagents that have been found to be effective for the product.

31614

While other unspecified media and reagents may also produce satisfactory results, a change in the ATCC and/or depositor-recommended protocols may affect the recovery, growth, and/or function of the product. If an alternative medium formulation or reagent is used, the ATCC warranty for viability is no longer valid. Except as expressly set forth herein, no other warranties of any kind are provided, express or implied, including, but not limited to, any implied warranties of merchantability, fitness for a particular purpose, manufacture according to cGMP standards, typicality, safety, accuracy, and/or noninfringement.

Disclaimers

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. Any proposed commercial use is prohibited without a [license from ATCC](#).

While ATCC uses reasonable efforts to include accurate and up-to-date information on this product sheet, ATCC makes no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. ATCC does not warrant that such information has been confirmed to be accurate or complete and the customer bears the sole responsibility of confirming the accuracy and completeness of any such information.

This product is sent on the condition that the customer is responsible for and assumes all risk and responsibility in connection with the receipt, handling, storage, disposal, and use of the ATCC product including without limitation taking all appropriate safety and handling precautions to minimize health or environmental risk. As a condition of receiving the material, the customer agrees that any activity undertaken with the ATCC product and any progeny or modifications will be conducted in compliance with all applicable laws, regulations, and guidelines. This product is provided 'AS IS' with no representations or warranties whatsoever except as expressly set forth herein and in no event shall ATCC, its parents, subsidiaries, directors, officers, agents, employees, assigns, successors, and affiliates be liable for indirect, special, incidental, or consequential damages of any kind in connection with or arising out of the customer's use of the product. While reasonable effort is made

31614

to ensure authenticity and reliability of materials on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of such materials.

Please see the material transfer agreement (MTA) for further details regarding the use of this product. The MTA is available at www.atcc.org.

This material is cited in a US and/or international patent and may not be used to infringe the claims. Depending on the wishes of the Depositor, ATCC may be required to inform the Depositor of the party to which the material was furnished.

Copyright and Trademark Information

© ATCC 2023. All rights reserved.

ATCC is a registered trademark of the American Type Culture Collection.

Revision

This information on this document was last updated on 2025-03-22

Contact Information

ATCC

10801 University Boulevard

Manassas, VA 20110-2209

USA

US telephone: 800-638-6597

Worldwide telephone: +1-703-365-2700

Email: tech@atcc.org or contact your local distributor