## **Biotechnology Explorer**<sup>™</sup>

## Genes in a Bottle<sup>™</sup> Kit DNA Helix Necklace Module

Instruction Manual Catalog #166-2250EDU

(Module contains 36 helix necklaces)

Duplication of any part of this document is permitted for classroom use only. Please visit explorer.bio-rad.com to access our selection of language translations for Biotechnology Explorer kit curricula.

For technical support, call your local Bio-Rad office, or in the U.S., call 1-800-424-6723





#### Genes in a Bottle: Capture Your Unique Essence!

Once your students have extracted genomic DNA from their cheek cells using the DNA extraction module (catalog #166-2000EDU), the DNA strands can be collected and transferred to a helix vial. The helix vial is then fashioned into a necklace that can be worn with pride, kept for posterity, or shared with a loved one! Be the first on your block to wear DNA! Read more: explorer.bio-rad.com.

### Learning opportunities for all levels of instruction.

This activity is designed for any classroom environment and requires no specialized equipment or stains. For middle school students, it's a perfect introduction to the exciting world of DNA science. For secondary and college level instruction, lessons on DNA structure and function, cell structure, and enzyme function can be introduced or reinforced with this laboratory activity.

We welcome your comments and suggestions. Have fun!

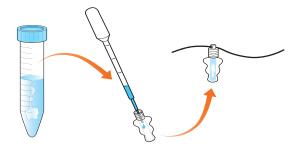
Biotechnology Explorer Team Bio-Rad Laboratories 6000 James Watson Drive Hercules, CA 94547 explorer.bio-rad.com The DNA helix necklace module contains enough material to prepare 36 DNA helix necklaces.

Inventory Check List	Amount Provided
Helix vials	36
Screw caps	36
Cords	36

### Genes in a Bottle: Capture Your Unique Essence!

#### Instructions

- Using a disposable plastic transfer pipet, carefully transfer an appropriate portion of the DNA in alcohol into the helix vial. You do not have to fill the entire vial with alcohol. (Note that students can share plastic transfer pipets for transferring their DNA into the helix vial.)
- 2. Place the screw cap onto the top of the helix vial and tighten.
- 3. Slip the cord through the screw cap and tie the cord.



**Optional:** To permanently seal your DNA necklace, add super glue to the outside threads of the helix vial (do not allow super glue to contact the alcohol solution or hazing may occur), and then tighten the cap. Allow super glue to dry with cap tightened.

# Congratulations, you've created your very own DNA helix necklace!





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