Product Information Sheet for NR-36060

Vector pLNHX_cHS4_650 for Expression in *Schistosoma*, Recombinant in *Escherichia coli*

Catalog No. NR-36060

This reagent is the tangible property of the U.S. Government.

For research use only. Not for human use.

Contributor:

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Manufacturer:

Biomedical Research Institute, Rockville, MD (NIH-NIAID Contract HHSN272201000005I)

Lot Number: 03232012

Manufacturing Date: FEB2012

Product Description:

Vector pLNHX_cHS4_650 was derived from pLNHXΔD70 (BEI Resources NR-36059) which was derived from the Clontech Laboratories vector pLNHX, a vector designed for retroviral gene delivery and expression. Once pLNHX is transfected into a packaging cell line, pLNHX can express a transcript containing the viral packaging signal, the neomycin selection marker and a target gene. To produce pLNHX_cHS4_650, pLNHX was digested with *Xho*I to remove the *Drosophila* heat shock protein 70 promoter resulting in pLNHXΔD70. pLNHXΔD70 was further modified by insertion of a 650 bp portion of the cHS4 insulator (including 250 bp of the core DNA sequence from the 5' end of the cHS4 fused with 400 bp from the 3' end of the cHS4) into the *Xba*I site of the U3 region of the 3'-LTR region to produce pLNHX_cHS4_650. The cHS4 element is a chromatin insulator which can block the interactions of the globin gene promoters and enhancers in cell lines and can protect expression cassettes in transformed cell lines and transgenic mammals from position effects. Shorter versions of the cHS4 insulator are known to retain the insulator activity of the full length element. Both vectors can be used for transduction of *Schistosoma*.[1]

Vector: pLNHX_cHS4_650 (GenBank: JN000001)
Selection: Ampicillin (Prokaryotic) and Neomycin (Eukaryotic)

Material Provided:

Each vial contains approximately 1 mL of *Escherichia coli* DH5α, transformed with vector pLNHX_cHS4_650, in SOC media (Super Optimal broth with Catabolite repression) supplemented with 15% glycerol.

Packaging/Storage:

NR-36060 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen on dry ice and should be stored at -60°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Vector pLNHX_cHS4_650 for Expression in *Schistosoma*, Recombinant in *Escherichia coli*, NR-36060."

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

Disclaimers:

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References:

1. Suttiprapa, S., Rinaldi, G. and Brindley, P. "Prototypic Chromatin Insulator cHS4 Protects Retroviral Transgene from Silencing in *Schistosoma mansoni."* Transgenic Res. 21 (2012): 555-566. PubMed: 21918820.
2. Rinaldi, G., et al. "An Antibiotic Selection Marker for Schistosome Transgenesis." Int. J. Parasitol. 42 (2012): 123-130. PubMed: 22155152.
3. Mann, V., et al. "Establishing Transgenic Schistosomes." PLoS Negl. Trop. Dis. 5 (2011): e1230. PubMed: 21912709.
4. Mann, V., et al. "Culture for Genetic Manipulation of Developmental Stages of *Schistosoma mansoni*." Parasitology 137 (2010): 451-462. PubMed: 19765348.

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