Guinea Pig Expression Clone CD8α/pcDNA3.1 Hygro(+)

Catalog No. NR-36204

For research use only. Not for human use.

Contributor:
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Manufacturer:
BEI Resources

Product Description:
NR-36204 is a full-length expression clone containing the CD8α gene (GenBank: NM_001172878) from guinea pig (Cavia porcellus). The CD8α gene was cloned into vector pcDNA3.1/hygro(+) via BamHI and EcoRV insertion sites, transformed into MAX Efficiency® Escherichia coli (E. coli) DH5α™ competent cells (Invitrogen™), and extracted using a QIAGEN® Plasmid Mega Kit.

Note: Sequencing results for NR-36204 revealed that most regions of the vector match the depositor's information, including the ampicillin resistance gene, the hygromycin resistance gene under control of the SV40 promoter, polyadenylation signals, and the pUC and f1 origins of replication. However, the native cytomegalovirus (CMV) promoter has been replaced by a ubiquitin (UbC) promoter upstream of CD8α; this replacement also resulted in the loss of the T7 promoter. The resulting size of the plasmid is 6.735 kilobases. The plasmid map and the complete plasmid sequence are provided on the Certificate of Analysis for NR-36204.

CD8 is expressed on cytotoxic T cells and functions as a coreceptor for recognition of major histocompatibility complex class I peptide complexes by the T-cell receptor. The CD8 molecule consists of two subunits (α and β) and exists either as a heterodimer (αβ) or a homodimer (αα). The sequence homology of guinea pig CD8 indicates greater homology to human, canine, and feline counterparts than to rodent CD8. As the guinea pig serves as an ideal nonprimate animal model to several human diseases, such as syphilis, tuberculosis, and chlamydial genital and ocular infections, CD8 provides a unique molecular tool for studying cell-mediated immune response.

Material Provided:
Each vial of NR-36204 contains approximately 1 µg of plasmid DNA in TE buffer. The concentration is shown on the Certificate of Analysis.

Note: The vial labels for NR-36204 incorrectly state that the plasmid DNA is provided as an E. coli glycerol stock.

NR-36204 is purified plasmid DNA that was extracted from bacteria prior to vialing.

Packaging/Storage:
NR-36204 was packaged aseptically in plastic cryovials. The product is provided frozen on dry ice and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

Post-Transformation Growth Conditions:
Media:
NR-36204 contains the gene required for ampicillin (Amp) resistance. The recommended concentration of Amp in culture is 100 µg/mL. Luria Bertani (LB) broth or equivalent LB agar or equivalent
Incubation:
Temperature: 37°C
Atmosphere: Aerobic
Propagation:
Incubate the tube, slant and/or plate at 37°C for 24 hours.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Guinea Pig Expression Clone CD8α/pcDNA3.1 Hygro(+), NR-36204."

Biosafety Level: 1

Disclaimers:
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References:

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