

Recombinant Adenovirus Type 5 Particles

Cat. No. ADE-012 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

This product is a concentrated source of highly-purified human Adenovirus type 5 particles (wild-type) from a lysate of optimally-infected 293 cells. Following double CsCl gradient purification with DNase treatment and dialysis, this Ad5 preparation is of very high quality and minimal lot-to-lot variation.

Background

Adenoviruses are medium-sized (80–100 nm), non-enveloped viruses. They have an icosahedral nucleocapsid containing a linear, double-stranded DNA genome of approximately 36 kb (Nermut, 1984). The viral genome is grouped into different transcriptional units, designated early (E1, E2, E3, E4), intermediate, and late. The E1 gene is essential for activation of other viral genes and for viral replication. Deletion of the E1 gene results in viruses that are replication incompetent in normal cells.

However, replication-competent viral particles can be produced from E1-deleted viral vectors by providing the E1 gene in trans. The E3 gene is nonessential for either viral replication or infection (Flint, 1999).

Wild-type adenoviruses, including human adenovirus type 5, are associated with a number of mild disorders, such as lower respiratory tract infections in the elderly or children. Of the 57 human adenovirus serotypes, 5 (Ad5) is one of the best studied, providing a better understanding of virus biology, host cellular processes and virus-cell interactions during infection. Ad5 is also widely used for transgene delivery in preclinical and clinical gene therapy studies; replication-defective vectors have been described expressing Ebola glycoproteins and malaria antigens for vaccine trials.

Purity

Purified virus, double CsCl gradient purification with DNase treatment and dialysis.

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Formulation	PBS.50 mM Hepes pH 7.8,10% Glycerol
Freezing	Can be frozen, but avoid multiple freeze/thaw cycles.
Storage	Store frozen at less than -20 centigrade, preferably -80 centigrade.
Notes	This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.
Type	Recombinant
ClassID 1	Infectious Disease
GENE INFORMATION	
Synonyms	Adenovirus Type 5 Particles

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