# GDR Telecom Site Energy Systems

# The tail fiber cannot be broken

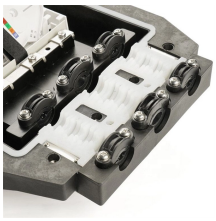
## Overview

The primary function of tail fibers is to enable bacteriophages to recognize and bind to specific receptors on the surface of bacterial host cells. This initial binding, known as adsorption, is a reversible process that occurs when a phage randomly collides with a susceptible. The Gram-negative bacterium Acinetobacter baumannii is categorized as a Priority 1 pathogen for research and development of new antimicrobials by the World Health Organization due to its numerous intrinsic antibiotic resistance mechanisms and ability to quickly acquire new resistance determinants. Consequently, the infection efficiency of phage T4 is one of the highest, reaching the theoretical value of. Caudovirales (tailed bacterial viruses) usually have fibers attached to the distal end of their tail. The preassembled are attached to the tail. ViralZone. Tail fibers, a prominent type of RBP, are typically elongated, flexible, and trimeric proteins, making it challenging to obtain high-resolution experimental data of their full-length structures.

## The tail fiber cannot be broken

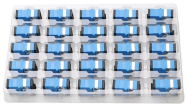
Bacteriophage lambda has a double-stranded DNA genome and a long, flexible, non-contractile tail encoded by a contiguous block of 11 genes downstream of the head genes. The tail ...

Tail fibers, a prominent type of RBP, are typically elongated, flexible, and trimeric proteins, making it challenging to obtain high-resolution experimental data of their full-length structures.



Tail fibers are structures on the phage that mediate their initial interaction with bacterial hosts, allowing them to recognize and attach to the bacterial surface. This initial binding is a ...

The gpJ trimer not only seals the tail tip into a closed cone but also extends a central tail fiber, providing the means through which lambda phage directly interacts with its host.



Caudovirales (tailed bacterial viruses) usually have fibers attached to the distal end of their tail. The preassembled are attached to the tail. The pathway of fibers assembly has been well studied in ...

They reported that fiberless particles and particles with retracted tail fibers are not inactivated as rapidly as particles with extended tail fibers suggesting that the tail fibers have an ...

A phylogenetic tree illustrates that tail fiber proteins do not group based on capsule targets but mainly on viral morphology (Figure 2). Generally, the myoviruses group together except for SH-Ab 155599 and ...

The tailed phage T4 encodes a specialized device for this purpose, the long tail fiber (LTF), which allows the virus to move on the bacterial surface and find a suitable site for infection.

Afterwards, the tip starts deforming the fiber, showing a linear deformation from point A to point B, where a steep drop of the cantilever indicates that the fiber is broken and the tip taps the mica surface.

In this review, we comprehensively summarize how the tail fibers of the T4 phage recognize host surface receptors at single-molecule and atomic levels.

## Contact Us

For more information, pricing, or custom energy solutions, please contact us:

Website: https://www.gdroofing.co.za
Email: sales@gdroofing.co.za
Phone: +27 72 418 9365
Address: 22 Electron Avenue, Isando, Johannesburg, 1600, South Africa

This document is for informational purposes only. Specifications subject to change without notice.