gp15 Protein, Escherichia phage T7 (His, Strep)

Cat. No.:	HY-P701851
Synonyms:	Internal virion protein gp15; Gene product 15; Gp15
Species:	Others
Source:	E. coli
Accession:	P03725 (S2-E747)
Gene ID:	1261034
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 μm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	Gp15, a pivotal component of the cylindrical core, plays a crucial role in the assembly of the inner surface of the capsid during capsid formation and is actively involved in the ejection of viral DNA into the host cell. This inner core comprises stacked rings of gp14, gp15, and gp16 proteins. Upon binding to the host cell surface, the internal core undergoes disassembly, leading to the ejection of gp15, along with gp14 and gp16, into the infected cell. It is likely that gp15 remains associated with gp16. The resulting gp15-gp16 complex forms interactions with both the viral DNA and the host inner membrane, potentially guiding the leading end of the genome through the periplasm and regulating the extent of DNA translocated into the host cell. Gp15 functions as a homooctamer and interacts with gp16, forming a complex after ejection, composed of a gp15 octamer and a gp16 tetramer, which likely binds both the viral DNA and the host inner membrane. Furthermore, gp15 interacts with gp14, emphasizing its integral role in the intricate orchestration of events during the viral life cycle.

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