

Porcine circovirus 2 Capsid protein (sf9, His)

Cat. No.:	HY-P74622
Synonyms:	Capsid protein; Cap; ORF2
Species:	Virus
Source:	Sf9 insect cells
Accession:	O56129 (N42-P233)
Gene ID:	/
Molecular Weight:	Approximately 23.8 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM Tris, 500 mM NaCl, pH 8.0, 10% Glycerol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>The Porcine Circovirus 2 Capsid Protein autonomously assembles to construct the virion's icosahedral capsid with a T=1 symmetry, characterized by a very small size (17 - 22 nm in diameter) that contributes to the virus's environmental stability and resistance to certain disinfectants, including detergents. Crucial for the initial attachment to host cell surface proteoglycans, particularly heparan sulfate moieties and chondroitin sulfate B, the capsid protein facilitates the subsequent internalization of the virus through a clathrin-, caveolae-, and dynamin-independent pathway, mediated by actin and Rho-GTPase. Following attachment, the virus traffics to the nucleus, where the capsid protein binds and transports the viral genome and Rep across the nuclear envelope. It forms homomultimers and assembles in the nucleus, potentially in an immature form, before migrating to the cytoplasm upon achieving maturation as a virion. Additionally, the Capsid Protein interacts with Rep, facilitating the relocation of Rep into the nucleus.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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