Data Sheet (Cat.No.TMPH-00901)

TargetMol

Human adenovirus C serotype 5 Fiber protein (His & Myc)

General Information

Synonyms: Protein IV;Fiber protein;SPIKE

Protein Construction: 1-392 aa

Species: HAdV-5

Expression Host: E. coli

Accession: P11818

Molecular Weight: 48.4 kDa (predicted)

AA Sequence: MKRARPSEDTFNPVYPYDTETGPPTVPFLTPPFVSPNGFQESPPGVLSLRLSEPLVTSNGMLALKMGNGLSLD EAGNLTSQNVTTVSPPLKKTKSNINLEISAPLTVTSEALTVAAAAPLMVAGNTLTMQSQAPLTVHDSKLSIATQ GPLTVSEGKLALQTSGPLTTTDSSTLTITASPPLTTATGSLGIDLKEPIYTQNGKLGLKYGAPLHVTDDLNTLTVA TGPGVTINNTSLQTKVTGALGFDSQGNMQLNVAGGLRIDSQNRRLILDVSYPFDAQNQLNLRLGQGPLFINS AHNLDINYNKGLYLFTASNNSKKLEVNLSTAKGLMFDATAIAINAGDGLEFGSPNAPNTNPLKTKIGHGLEFD SNKAMVPKLGTGLSFDSTGAITVG

QC Testing

Biological Activity: Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.

Purity: > 85% as determined by SDS-PAGE.

Endotoxin: < 1.0 EU/μg of the protein as determined by the LAL method.

Formulation: If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Forms spikes that protrude from each vertex of the icosahedral capsid. Interacts with host coxsackievirus and adenovirus receptor CXADR located at the cell tight junctions to provide virion initial attachment to target cell. The fiber protein binds to CXADR with a higher affinity than CXADR binds to itself, thereby blocking the cell-cell adhesion function of CXADR dimers and leading to local disruption of the tight junction. Fiber protein present on neo-synthesized particles may thus disrupt the junctional integrity in order to facilitate further neighboring cells infection. Fiber proteins are shed during virus entry, when virus is still at the cell surface. Fiber shedding is dependent on viral CXADR drifting motion and subsequent binding to immobile integrins. Heparan sulfate might also play a role in virus binding.

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