



Synthelis®

Viral Protein

Protein Catalog

F5L - Vaccinia Virus Major Membrane Protein

PL007

Product specification

Acronym: F5L

Origin species : Vaccinia virus (strain copenhagen)

Protein reference : P21014 (UniProtKB)
P21014.1 (GenBank)

Family: Receptor

Expression system: E.coli based CFPS

Format: Proteoliposomes

Protein sequence: Met1 – Asn321

Tag : 6xHis tag (N-ter)

Cleavage site: Factor Xa

Product MW: 39.0 kDa

Application: Drug screening & discovery, antibody development, structural biology

Product description

The major membrane protein F5L is a Variola virus protein required for the virus replication. The other potential functions of this protein are unknown.

Recombinant protein sequence

His tag – factor X cleavage site –

MGTNVVRFVILYLLAVCGCIEYDVEDDNDVHICTHTDVSHINHTSWYYNDKVIALATEDKTSGYISSFIKRVNISLTCLNISSLRYEDS
GTYKGVSHLKDGVIVTTTMMNISVKANIIDLTRVRYLTRNYCEVKIRCEITSFALNGSTTPPHMILGTVDKWKYLPFPTDDYRYVGE
LKRYISGNPYPTESLAEISSTFNRFTIVKNLNDDEFSCYLFSQNYSFHKMLNARHICESEWKALNNNDNASSMPASHNNLANDLS
SMMSQLQNDNDNDYSAPMNVNDLIMIVLITMLSILVIVVIAAISMYKKSKYRHIDN



Quality analysis

Purity:

Liposomes are directly incorporated into the Cell-Free reaction, thus, some impurities from the *E.coli* lysate might be present in the proteoliposomes.

A negative control (proteoliposomes without the protein of interest) can be provided (useful for screening, immunization...).

The purity can be improved by protein expression in detergent and relipidation after purification step(s).

Purification procedure: F5L proteoliposomes are purified on a sucrose gradient.

NB : Migration of membrane proteins on SDS-PAGE can result in « gel shifting » due to the presence of hairpins (helix-loop-helix)¹⁻³.

References :

1 – Rath A., et al., Detergent binding explains anomalous SD-PAGE migration of membrane proteins PNAS, 2009 Feb 10, vol. 106

2 – Rath A., et al., Acrylamide concentration determines the direction and magnitude of helical membrane protein gel shifts, PNAS, 2013 Sep 24, 110(39)

3 – Rath A., et al., Correction factors for membrane protein molecular weight readouts on sodium dodecyl sulfate-polyacrilamide gel electrophoresis, Anal. Biochem., 2013 Mar 1, 434(1)

Formulation

Buffer: Available in Hepes 50mM, pH 7.5 with cryoprotectants. Other buffers or customized formulation can be provided upon request.

Customized Hydrophobic matrix: Customized formulation with specific lipids like PEGylated or biotinylated lipids can be used upon request, as well as targeting molecules.

Storage/Stability: Store at +4°C for up to one week or several months at -80°C. Aliquot for storage.

Do not freeze-thaw after aliquoting.

Use restrictions: For life science research use only.

Available sizes: 10µg, 50µg, 100µg, customized quantity on request.

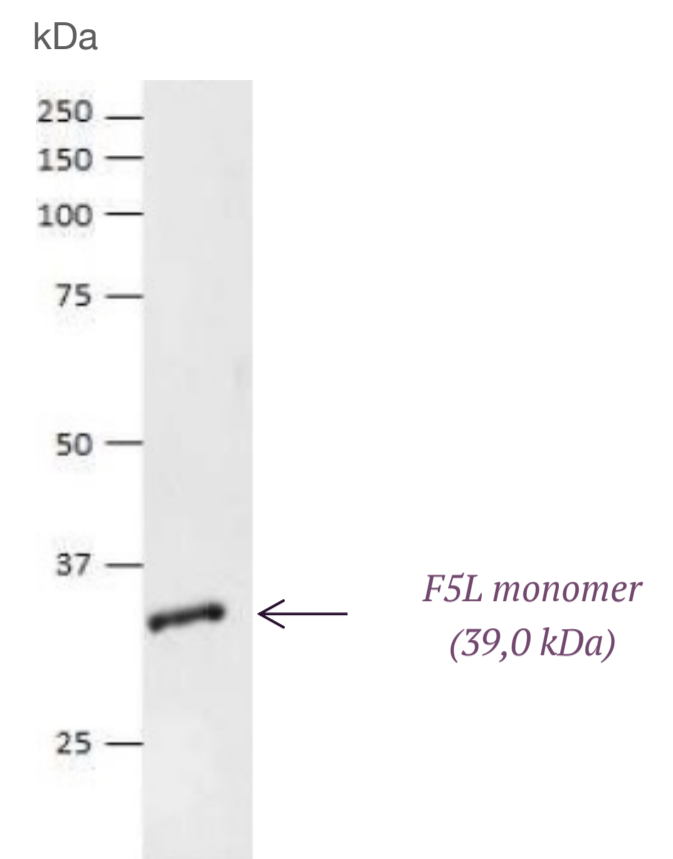
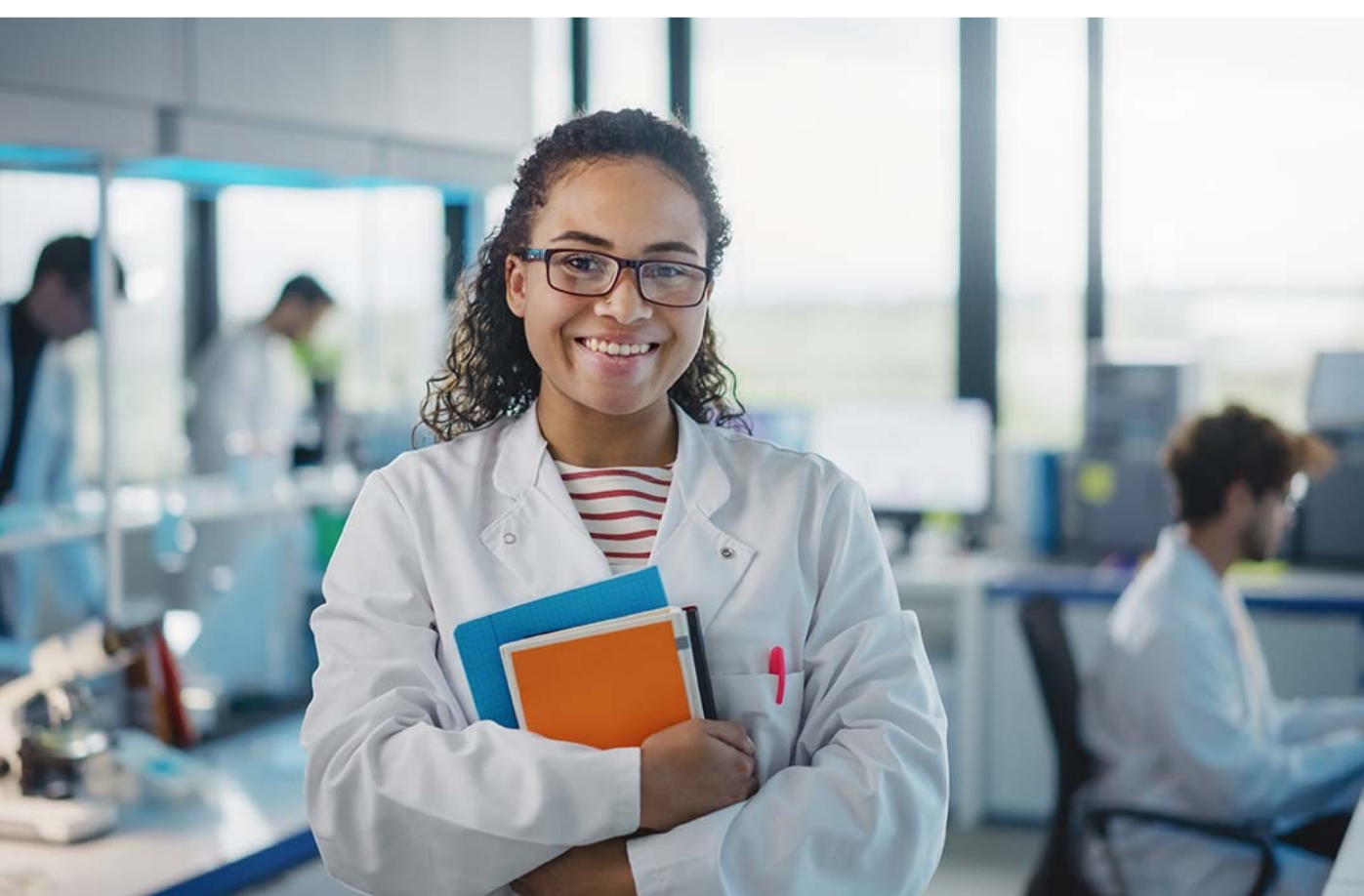
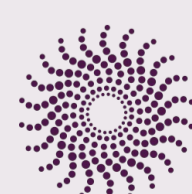


Fig.1: Identification of F5L in the proteoliposomes by Western blot (using an anti-6xHis antibody).



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