

M13 Minor Coat Protein (E1): sc-57926

BACKGROUND

M13 Minor Coat Protein, also known as attachment protein G3P, gene 3 protein (G3P) or III, is a 424 amino acid single-pass type I membrane protein that belongs to the inovirus G3P protein family. M13 Minor Coat Protein plays an important role in budding and the proper entry of the viral genome into bacterial hosts, the latter of which occurs when M13 Minor Coat Protein forms a complex with G6P, which also ensures the correct termination of filamentous phage assembly. M13 Minor Coat Protein associates with the bacterial host inner membrane prior to its assembly, and consists of three domains: N1, N2 and CT. The N1 domain is connected to N2 via a glycine-rich linker and forms a complex with toIA during the process of infection, whereas the N2 domain associates with the F pilus.

REFERENCES

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3. Hines, J.C. and Ray, D.S. 1980. Construction and characterization of new coliphage M13 cloning vectors. *Gene* 11: 207-218.
4. Gailus, V., Ramsperger, U., Johner, C., Kramer, H. and Rasched, I. 1994. The role of the adsorption complex in the termination of filamentous phage assembly. *Res. Microbiol.* 145: 699-709.
5. Lubkowski, J., Hennecke, F., Plückthun A. and Wlodawer, A. 1998. The structural basis of phage display elucidated by the crystal structure of the N-terminal domains of g3p. *Nat. Struct. Biol.* 5: 140-147.
6. Lubkowski, J., Hennecke, F., Plückthun A. and Wlodawer, A. 1999. Filamentous phage infection: crystal structure of g3p in complex with its co-receptor, the C-terminal domain of TolA. *Structure* 7: 711-722.

SOURCE

M13 Minor Coat Protein (E1) is a mouse monoclonal antibody raised against isolated M13 bacteriophage coat proteins.

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

M13 Minor Coat Protein (E1) is recommended for detection of minor coat protein (also designated as G3P) of M13 phage origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Molecular Weight of M13 Minor Coat Protein: 45 kDa.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.



See **M13 Major Coat Protein (RL-ph1): sc-53004** for M13 Major Coat Protein antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647.