abcam

ab9225

Anti-M13 Bacteriophage Coat Protein g8p antibody [RL-ph2]

Anti-M13 Bacteriophage Coat Protein g8p antibody [RL-ph2] (ab9225) is a mouse monoclonal antibody detecting M13 Bacteriophage Coat Protein g8p in **Western Blot, Flow Cytometry**. Suitable for **Enterobacteria phage M13**.

- Trusted since 2002

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Full Length Protein corresponding to Enterobacteria phage M13 Capsid protein G8P. Database link P69541
Clone number	RL-ph2
Purification technique	Affinity purification Protein G
Specificity	RL-ph2 reacts with the major M13 filamentous phage coat protein g8p with a molecular weight of 5 kDa.
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Recombinant full length protein - Enterobacteria phage M13
Dilution info	1/100 - 1/1000
Notes	-

Predicted

Species	Enterobacteria phage M13
Dilution info	-
Notes	-

Flow Cyt

Expected

Species	Enterobacteria phage M13
Dilution info	1/25 - 1/200
Notes	ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Recombinant full length protein - Enterobacteria phage M13
Dilution info	-
Notes	-

ICC

Expected

Species	Enterobacteria phage M13
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Recombinant full length protein - Enterobacteria phage M13
Dilution info	-
Notes	-

Target data

See full target information Capsid protein G8P

Function	Self assembles to form a helical capsid wrapping up the viral genomic DNA. The capsid is made of gently-curved alpha-helix rods and displays a filamentous structure with a length of 760-1950 nm and a width of 6 nm (By similarity). Belongs to the capsids of class I filamentous phages, which have a helical rise of about 16 Angstrom and a helical twist of about 36 degrees (PubMed:25587134). The virion assembly and budding take place at the host inner membrane (Probable).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-M13 Bacteriophage Coat Protein g8p antibody [RL-ph2] (ab9225) is a mouse monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Flow Cyt) in Enterobacteria phage M13 samples.

What is the molecular weight of M13 Bacteriophage Coat Protein g8p?
Anti-M13 Bacteriophage Coat Protein g8p [RL-ph2] (ab9225) specifically detects a band for M13 Bacteriophage Coat Protein g8p (UniProt: P69541) at a molecular weight of 5kDa.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The M13 bacteriophage coat protein g8p also known simply as g8p plays a mechanical role in forming the protective sheath around the phage's single-stranded DNA. The molecular weight of g8p is approximately 5 kDa. It is an important component of the M13 bacteriophage typically expressed within the bacterial host after phage infection. As one of the coat proteins g8p drives the assembly of new phage particles by arranging itself into helical structures that encapsulate the viral genome.
Biological function summary	G8p's function extends beyond just structural support for the phage. It participates in the assembly of the M13 phage which is part of the extrinsic complex necessary for phage propagation. During this process g8p cooperates closely with other proteins to manage the packaging of genetic material and ensure successful phage extrusion from the bacterial host. Functionally g8p aids in maintaining phage integrity and viability directly affecting the efficiency of phage propagation within the microbial environment.
Pathways	G8p has an essential role in the M13 bacteriophage lifecycle. It facilitates the phage's extrusion pathway where newly formed phage particles exit the bacterial cell. This pathway involves interactions with proteins like the M13 p9 (g9p) protein ensuring efficient phage release and infection of nearby bacterial cells. The interaction among these proteins through the extrusion pathway is critical for the replication and spread of the M13 bacteriophage.
Associated diseases and disorders	G8p as a component of phage display technology interacts indirectly with a variety of disorders particularly bacterial infections. M13 phage display systems use g8p to present peptides or proteins on the phage surface aiding in identifying molecules that can target infectious agents. Although g8p's primary function does not link directly to specific diseases its application in phage display connects it with therapeutic and diagnostic developments potentially interacting with proteins involved in bacterial pathogenesis.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

1 product image

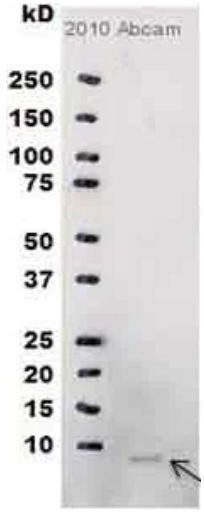


Image courtesy of an anonymous customer review.

Western blot - Anti-M13 Bacteriophage Coat Protein g8p antibody [RL-ph2] (ab9225)

Primary antibody incubated for 16 hours at 4°C.
Blocking step performed using 5% milk for 1 hour at room temperature.
All lanes:
Western blot - Anti-M13 Bacteriophage Coat Protein g8p antibody [RL-ph2] (ab9225) at 1/1000 dilution

All lanes:
whole cell lysate prepared from XL10Gold cells at 50 µg

Secondary

All lanes:
Western blot - Rabbit Anti-Mouse IgG H&L (HRP) (ab6728) at 1/2000 dilution

Predicted band size: 8 kDa

Observed band size: 6 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.