abcam

ab8274

Anti-Salmonella typhimurium LPS antibody [1E6]

Anti-Salmonella typhimurium LPS antibody [1E6] (ab8274) is a mouse monoclonal antibody detecting Salmonella typhimurium LPS in **Western Blot, Flow Cytometry, ICC/IF, ELISA, EM, Dot Blot**. Suitable for **Salmonella typhimurium**.

- Over 20 publications
- Trusted since 2002

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.4 Preservative: 0.1% Sodium azide
Form	Liquid
Clonality	Monoclonal
Clone number	1E6
Purification technique	Affinity purification Protein A
Specificity	This antibody is directed against lipopolisaccharides of *Salmonella typhimurium*
Light chain type	unknown
Concentration	2 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

EM

Tested

Species	Salmonella typhimurium
Dilution info	-
Notes	-

Flow Cyt

Expected

Species	Salmonella typhimurium
Dilution info	-
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

ELISA

Expected

Species	Salmonella typhimurium
Dilution info	Use at an assay dependent concentration.
Notes	-

Dot

Expected

Species	Salmonella typhimurium
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Salmonella typhimurium
Dilution info	-
Notes	-

ICC/IF

Expected

Species	Salmonella typhimurium
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information Salmonella typhimurium LPS

Storage

Shipped at conditions	Blue Ice
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-Salmonella typhimurium LPS antibody [1E6] (ab8274) is a mouse monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Flow Cyt), Immunocytochemistry/immunofluorescence (ICC/IF), ELISA, Electron microscopy (EM), Dot Blot in Salmonella typhimurium samples.

Trusted by the scientific community
Anti-Salmonella typhimurium LPS [1E6] (ab8274) was first used in a scientific publication in 2002 and has been cited over 20 times in peer-reviewed journals.

Supplementary info

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

Activity summary	Salmonella typhimurium LPS also known as lipopolysaccharide forms a vital component of the outer membrane of Gram-negative bacteria such as Salmonella. This complex molecule consists of a lipid A domain a core oligosaccharide and an O-antigen polysaccharide chain. The lipid A component with an estimated mass of roughly 10 kDa is the main contributor to LPS endotoxin activity. In Salmonella the LPS is expressed in the bacterial cell wall providing structural integrity and defense against environmental stresses. Its composition varies among different Salmonella strains influencing the bacterium's virulence and interaction with host immune systems.
Biological function summary	Salmonella typhimurium LPS engages in stimulating immune responses. An important part of the LPS structure the lipid A moiety activates the innate immune system by binding to Toll-like receptor 4 (TLR4) on host immune cells. This interaction triggers a cascade of pro-inflammatory cytokine production. As part of the outer membrane of Salmonella LPS works in synergy with other membrane proteins to form the protective barrier for the bacteria. The variability in the O-antigen portion aids in evasion of host immune responses allowing different Salmonella serotypes to survive and cause infection.
Pathways	The response of TLR4 to Salmonella typhimurium LPS forms a central axis in innate immune signaling. This pathway activates NF-kB a transcription factor pivotal in inducing cytokine genes thereby intensifying the antibacterial response. LPS interactions not only involve TLR4 but also influence pathways such as the MAPK signaling cascade further regulating immune responses. These pathways ensure rapid immune mobilization to control bacterial infections highlighting the significant role LPS plays in pathogen-host interactions.
Associated diseases and disorders	Salmonella typhimurium LPS remains an important factor in the pathogenesis of salmonellosis and septic shock. LPS as a potent endotoxin contributes to systemic inflammation during septicemia by over-activating the immune system. Its interaction with TLR4 leads to high levels of inflammatory cytokines resulting in symptoms associated with both intestinal and systemic infections. The molecular attributes of LPS particularly lipid A connect to disease outcomes and also offer potential targets for therapeutic intervention in controlling severe inflammatory responses during Salmonella infections.

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.

2 product images

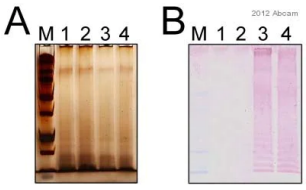


Image courtesy of Aaron White by customer review.

Western blot - Anti-Salmonella typhimurium LPS antibody [1E6] (ab8274)

Gels were (A) silver-stained or (B) Western blotted using the Anti-Salmonella typhimurium 0-4 antibody [1E6] (ab8274) as the primary antibody. Although equal amounts of cellular material were detected by silver staining, only the S. Typhimurium samples were recognized by the 1E6 antibody on the corresponding Western blot.
All lanes:
Western blot - Anti-Salmonella typhimurium LPS antibody [1E6] (ab8274) at 1/1000 dilution

Lane 1:
Whole cell polysaccharides from S. Enteritidis 27655-3b at 100000000 Cells

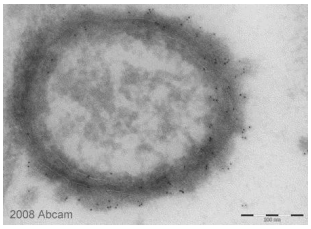
Lane 2:
Whole cell polysaccharides from S. Enteritidis Sal8 at 100000000 Cells

Lane 3:
Whole cell polysaccharides from S. Typhimurium ATCC 14028s at 100000000 Cells

Lane 4:
Whole cell polysaccharides from S. Typhimurium SL1344 at 100000000 Cells

Secondary

All lanes:
AP conjugated goat anti-mouse polyclonal at 1/4000 dilution



This image is courtesy of an anonymous customer review

Electron Microscopy - Anti-Salmonella typhimurium LPS antibody [1E6] (ab8274)

Electron microscopy image of ultrathin cryosections of *Salmonella paratyphi* using ab8274 (1/100). For further experimental details please refer to abreview.

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