

# Datasheet



Mouse mAb to **Shigella dysenteriae Serotype 1**  
Clone **EBS-I-106**  
Isotype **IgG3-κ**

## Source

A BALB/c mouse was immunized with total sonicate of *Shigella dysenteriae* NCTC 4837.  
Fusion partner: NS-1.

## Specifications

EBS-I-106 reacts with a soluble extracted antigen from *Shigella dysenteriae* S1 in EIA. Shigellae are Gram-negative, non-spore-forming, facultative anaerobic, non-motile bacteria. *S. dysenteriae* is a species of the rod-shaped bacterial genus *Shigella*. This microbe is a normal inhabitant of the human gastrointestinal tract and can cause shigellosis (bacillary dysentery). This is the most severe dysentery mainly because of its potent and deadly Shiga toxin. Shiga toxins work by inhibiting protein synthesis in the host cells. After entering a cell, the Shiga toxin acts as an N-glycosidase, cleaving several nucleobases from the RNA that comprises the ribosome, thereby halting protein synthesis. The toxin has two subunits: A, which is internalized and cleaved into two parts, one of which binds to the ribosome, disrupting protein synthesis; and B, a pentamer that binds to specific glycolipids on the host cell, specifically globotriaosylceramide. *S. dysenteriae* is spread through contaminated water and foodstrains are resistant to several antibiotics because of the presence of R factors in plasmids.



Figure 1: *Shigella dysenteriae*

## Species reactivity

Positive: *S. dysenteriae*.

## Applications

Detection of *S. dysenteriae*.

ELISA	Frozen sections	Immunofluorescence
+	+	+

## Format

Produced in tissue culture, contains no host Ig. Antibodies are affinity purified and presented in PBS with 0,02 % sodium azide.

Stored at 4°C- 8°C, shelf life is at least 24 months after purchase.

## Dilution advice

- ELISA (solid phase: 0,1-100 µg/ml; tracer: 0,001-100 µg/ml for 30 min at RT).
- Immunofluorescence (0,5-1,0 µg/ml).
- Immunohistology (1-2 µg/ml for 30-60 minutes at RT; acetone or paraformaldehyde fixed only; information on a suitable antigen retrieval method for staining of formalin-fixed tissues is unavailable to date).

## Positive control

*S. dysenteriae* S1 extract or infected cells or tissue, NCTC 4837.

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## References

- Feng, L, et al, *Microb. Pathog.* **36**: 109-115 (2003).
- Dutta, S, et al, *Microbiol. Immunol.* **48**: 965-969 (2004).