



Shigella dysenteriae (0911): sc-58032

BACKGROUND

Shigellae are Gram-negative, non-spore-forming, facultatively anaerobic, non-motile bacteria. *Shigella 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. *Shigella dysenteriae* is spread through contaminated water and food.

REFERENCES

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SOURCE

Shigella dysenteriae (0911) is a mouse monoclonal antibody raised against whole cells of ATCC strain 13313.

PRODUCT

Each vial contains 100 µg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Shigella dysenteriae (0911) is recommended for detection of serotype 1 of *Shigella dysenteriae* and *Shigella dysenteriae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with *S. boydii*, *S. flexneri* or *S. sonnei*.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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