



## SEF14 (bV-12): sc-22551

### BACKGROUND

Epidemiological and microbiological research suggests that egg laying hens are the major reservoir for *Salmonella enterica serovar enteritidis* (*S. enteritidis*), which causes zoonotic gastroenteritis in humans. *S. enteritidis* possesses the unusual ability to infect the hen's ovary, thereby permitting the bacterium to contaminate the contents of intact eggs sold to consumers. *S. enteritidis* produces a novel thin aggregative type of fimbriae, which have been implicated as important structures, which facilitate the initial interaction between the pathogen and host. SEF14 is a distinct 14 kDa fimbrin protein produced ostensibly by *S. enteritidis*. SEF14 fimbriae are only found in *Salmonella enterica serovar enteritidis* and closely related serovar, suggesting that SEF14 fimbriae may affect serovar-specific virulence traits. The putative SEF14 adhesion subunit is specifically required for the stage of the infection, subsequent to transit across the intestinal barrier. SEF14 fimbriae also mediate bacterial cell aggregation on inanimate surfaces.

### REFERENCES

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- Holt, P.S., Stone, H.D., Gast, R.K., and Greene, C.R. 2000. Application of the agar gel precipitin test to detect antibodies to *Salmonella enterica serovar enteritidis* in serum and egg yolks from infected hens. *Poult. Sci.* 9: 1246-1250.
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- Edwards, R.A., Schifferli, D.M., and Maloy, S.R. 2000. A role for *Salmonella fimbriae* in intraperitoneal infections. *Proc. Natl. Acad. Sci. USA* 3: 1258-1262.
- Woodward, M.J., Sojka, M., Sprigings, K.A., and Humphrey, T.J. 2000. The role of SEF14 and SEF17 fimbriae in the adherence of *Salmonella enterica* serotype *Enteritidis* to inanimate surfaces. *J. Med. Microbiol.* 5: 481-487.

### SOURCE

SEF14 (bV-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SEF14 of *Salmonella enteritidis* origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-22551 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

SEF14 (bV-12) is recommended for detection of SEF14 of *S. enteritidis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

### 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](http://www.scbt.com) or our catalog for detailed protocols and support products.