



CagA (bK-20): sc-48128

BACKGROUND

Helicobacter pylori is a spiral shaped bacterium that accounts for eighty percent of stomach ulcers and more than ninety percent of duodenal ulcers. Infection with *H. pylori* is also associated with the development of gastric cancer. The vacuolating toxin VacA is a major determinant of *H. pylori*-associated gastric disease. In non-polarized cells, VacA alters the endocytic pathway, resulting in the release of acid hydrolases and the reduction of both extracellular ligand degradation and antigen processing. The toxin forms trans-membrane anion-specific channels and reduces the transepithelial electrical resistance of polarized monolayers. Localization of the VacA channels in acidic intracellular compartments causes osmotic swelling; which, together with membrane fusion, leads to vacuole formation. This protein has recently been shown to be an important antigen in the human immune response to *H. pylori* infection. Cytotoxin associated gene A, otherwise known as CagA, is closely associated with that of VacA. CagA, a 120 kDa protein, induces morphological changes in the host, as well as inducing actin reorganization, variations in the cell cycle and autocrine effects.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: cagA (human) mapping to 1q21; Caga (mouse) mapping to 3 F1-F2.

SOURCE

CagA (bK-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CagA of *H. pylori* 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-48128 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CagA (bK-20) is recommended for detection of CagA of hp origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of CagA: 120 kDa.

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. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.