**BACKGROUND**

*Helicobacter pylori* is a spiral shaped bacterium that accounts for 80 percent of stomach ulcers and more than 90 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 transmembrane 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. Cytotoxic associated gene A, otherwise known as CagA, is closely associated with that of VacA. CagA induces morphological changes in the host, as well as inducing Actin reorganization, variations in the cell cycle and autocrine effects.

**SOURCE**

CagA (A-10) is a mouse monoclonal antibody raised against amino acids 1-300 of CagA of *H. pylori* origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. CagA (A-10) is available conjugated to agarose (sc-28368 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-28368 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-28368 PE), fluorescein (sc-28368 FITC), Alexa Fluor® 488 (sc-28368 AF488), Alexa Fluor® 546 (sc-28368 AF546), Alexa Fluor® 594 (sc-28368 AF594) or Alexa Fluor® 647 (sc-28368 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 880 (sc-28368 AF880) or Alexa Fluor® 790 (sc-28368 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

CagA (A-10) is recommended for detection of CagA of *H. pylori* origin by Western Blotting (starting dilution 1:300, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of CagA: 120 kDa.

**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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**STORAGE**

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

**DATA**

![Western blot analysis of CagA fusion protein](image1)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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