



Urease α (bC-14): sc-22445

BACKGROUND

Helicobacter pylori is present in the stomachs of at least half of the world's population. Although gastric adenocarcinoma is associated with the presence of *H. pylori* in the stomach, only a small fraction of colonized individuals develop this common malignancy. *H. pylori* urease, an enzyme that generates ammonia and is present within the lamina propria of colonized individuals, binds to class II major histocompatibility complex (MHC) molecules on the surfaces of gastric epithelial cells *in vitro*. In addition, Urease, which may be toxic to gastric epithelial cells, may also induce apoptosis. Specifically, Urease plays a crucial role in the development of ulcers in the duodenum by accelerating apoptosis in the antral mucosa. Ammonia accelerates TNF α cytokine-induced apoptosis, while ammonia or urease alone are unable to induce apoptosis. Urease exists as two forms, Urease α (UreA) and Urease β (UreB).

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SOURCE

Urease α (bC-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Urease α of *H. pylori* origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-22445 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Urease α (bC-14) is recommended for detection of Urease α of *H. pylori* 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).

Molecular Weight of Urease α : 26 kDa.

Positive Controls: *E. coli* extract.

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.

PROTOCOLS

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