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**Title:** Assessment of anti –urease action for the purified IgY –HPUC antibody

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**Abstract:** Background and Objectives: Helicobacter pylori, the causative agent of gastritis and gastric ulcer, plays a crucial role in development of gastric carcinomas. Chicken egg yolk was recognized as an inexpensive, alternative antibody source. Chicken IgY has been extensively explored as oral immunosupplementation for prophylaxis, preventive medicine and therapy of infectious diseases. Egg yolk antibodies have also great potential for the isolation and purification of other bioactive compounds or pathogens and for immunoassays. The usefulness of egg yolk-driven immunoglobulin Y (IgY) in the control of H.pylori infection. The aim of this study was to Assessment of anti –urease action for the purified IgY –HPUC antibody.

**Methods:** For the measurement of IgY-HpUc anti-urease activity, H.pylori was inoculated in BHI and incubated at 37°C under microaerophilic conditions until the OD600 reached 0.5. Different concentrations of IgY-HpUc were added to each of these cultures, followed by six more hours of incubation under the same conditions (37oC, Microaerophilic conditions). 25 μl urea-phenol red solution (2%urea and 0.03% phenol red) was then added to each of these cultures. The activity of IgY-HpUc was assayed by change in color and measurement of optical density at 550 nm.

**Results:** Anti-Urease activity of purified IgY-HpUc was estimated using different concentrations of purified IgY-HpUc. At 10 mg/ml concentration, the IgY-HpUc significantly (P≤ 0.001) inhibited urease activity. At this concentration, IgY-HpUc reduced urease activity by 81.29%.

**Conclusions:** IgY-Hp to inhibit adhesion of the bacterium to gastric epithelial cells and exhibit powerful urease-inhibiting activity. Activity of urease enzyme decreases with increase in IgYHpUc concentration.

H.pylori, IgY-HpUc, urease

**Presentation:** Poster