abcam

Product datasheet

# Helicobacter pylori IgG plus ELISA Kit ab178645

1 Image

## Overview

**Product name** Helicobacter pylori IgG plus ELISA Kit

**Detection method** Colorimetric

**Precision**

Intra-assay

| Sample | n | Mean | SD | CV% |
|---|---|---|---|---|
| sample | 24 | 1.161% | | 2.3% |
| sample | 24 | 1.751% | | 1.76% |
| sample | 24 | 0.745% | | 3.34% |

Inter-assay

| Sample | n | Mean | SD | CV% |
|---|---|---|---|---|
| sample | 12 | 4.62% | | 13.44% |
| sample | 12 | 14.16% | | 8.94% |
| sample | 12 | 28.06% | | 10.07% |

**Sample type** Serum, Hep Plasma, Cit plasma

**Assay type** Sandwich (quantitative)

**Range** 1.39 IU/ml - 150 IU/ml

**Assay duration** Multiple steps standard assay

**Species reactivity** **Reacts with:** Human

**Product overview** *Helicobacter pylori* IgG plus ELISA Kit (ab178645) is designed for the quantitative determination of IgG class antibodies against *Helicobacter pylori* in human serum or plasma (citrate, heparin).

The quantitative immunoenzymatic determination of specific antibodies is based on the ELISA (Enzyme-linked Immunosorbent Assay) technique. Microplates are coated with specific antigens to bind corresponding antibodies of the sample. After washing the wells to remove all unbound sample material a horseradish peroxidase (HRP) labelled conjugate is added. This conjugate binds to the captured antibodies. In a second washing step unbound conjugate is removed. The

immune complex formed by the bound conjugate is visualized by adding Tetramethylbenzidine (TMB) substrate which gives a blue reaction product. The intensity of this product is proportional to the amount of specific antibodies in the sample. Sulphuric acid is added to stop the reaction. This produces a yellow endpoint colour. Absorbance at 450/620 nm is read using an ELISA microwell plate reader.

Helicobacter pylori is a spiral Gram-negative bacterium (2-6.5 µm in size, flagellated) which colonizes the human gastric mucosa. The organism is found in the mucus layer and adheres to the surface mucus epithelium of the stomach but generally does not penetrate the gastric mucosa directly.

However, there is a secondary inflammatory response in the mucosa leading to chronic active gastritis. Helicobacter pylori is the primary causative agent in most cases of peptic ulcer disease. Infection rate in Europe is about 30%-40%, worldwide about 50%. There is an inverse relationship between the presence of Helicobacter pylori infection and socioeconomic status. In developing countries, people acquire the infection at an early age such that by young adulthood as many as 90% of the population might have Helicobacter pylori gastritis. In developed western countries the prevalence of Helicobacter pylori gastritis is much lower. Under these conditions, the rate of acquisition is much slower (roughly 1% per annum) and the older one is, the more likely one is to be infected with the organism.

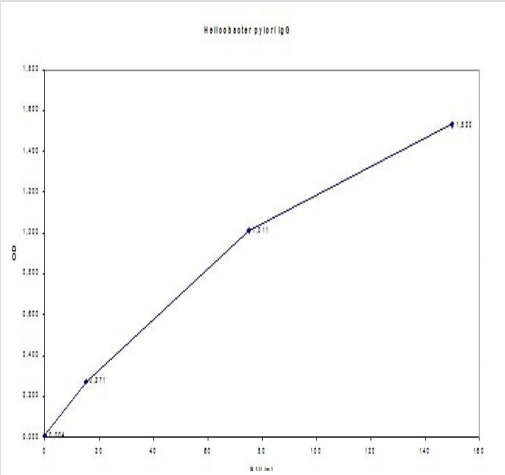
**Platform** Pre-coated microplate (12 x 8 well strips)

## Properties

**Storage instructions** Store at +4°C. Please refer to protocols.

| Components | Identifier | 1 x 96 tests |
|---|---|---|
| 20X Washing Solution | White cap | 1 x 50ml |
| anti-human IgG HRP conjugate | | 1 x 20ml |
| Cover Foil | | 1 unit |
| Helicobacter pylori Coated Microplate (IgG) | | 1 unit |
| Helicobacter pylori IgG Additional Control | | 1 x 2ml |
| Helicobacter pylori IgG Standard A - 0 U/mL | | 1 x 2ml |
| Helicobacter pylori IgG Standard B - 15 U/mL | | 1 x 2ml |
| Helicobacter pylori IgG Standard C - 75 U/mL | | 1 x 2ml |
| Helicobacter pylori IgG Standard D - 150 U/mL | | 1 x 2ml |
| IgG Sample Diluent | | 1 x 100ml |
| Stop Solution | red cap | 1 x 15ml |
| TMB Substrate Solution | Yellow cap | 1 x 15ml |

## Images



Typical Standard Curve

Typical Standard Curve Representative standard curve using ab178645 using the point to point function.

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