Table S1. Report of diagnostic test results obtained for each patients with dyspeptic symptoms enrolled in the primary optimization in-house ELISA using samples from *H. pylori*-positive cases (n=23) and *H. pylori*-negative controls (n=23).

Patient' data	Gold standar tests			*H. pylori*	*H. pylori* -IgG
ID	RUT	*Culture*	*Histopathology*	status[a]	ELISA[b]
25	Positive	Positive	Positive	Positive	Positive
34	Positive	Negative	Positive	Positive	Positive
87	Positive	Positive	Positive	Positive	Positive
91	Positive	Positivo	Negative	Positive	Positive
100	Positive	Positive	Positive	Positive	Positive
101	Positive	Negative	Positive	Positive	Positive
104	Positive	Positive	Negative	Positive	Positive
111	Positive	Negative	Positive	Positive	Positive
114	Positive	Positive	Positive	Positive	Positive
115	Positive	Negative	Positive	Positive	Positive
116	Positive	Positive	Positive	Positive	Positive
117	Positive	Negative	Positive	Positive	Positive
118	Positive	Positive	Positive	Positive	Positive
121	Positive	Positive	Positive	Positive	Positive
130	Positive	Positive	Negative	Positive	Positive
136	Positive	Positive	Positive	Positive	Positive
141	Positive	Positive	Positive	Positive	Positive
144	Positive	Positive	Positive	Positive	Positive
146	Positive	Positive	Positive	Positive	Positive
154	Positive	Negative	Positive	Positive	Positive
163	Positive	Negative	Positive	Positive	Positive
164	Positive	Negative	Positive	Positive	Positive
170	Positive	Negative	Positive	Positive	Positive

Patient' data	Gold standar tests			*H. pylori*	*H. pylori* -IgG
ID	RUT	*Culture*	*Histopathology*	status[a]	ELISA[b]
5	Negative	Negative	Positive	Negative	Negative
11	Negative	Negative	Negative	Negative	Negative
16	Negative	Negative	Negative	Negative	Negative
22	Negative	Negative	Negative	Negative	Negative
70	Negative	Negative	Negative	Negative	Negative
98	Negative	Negative	Negative	Negative	Negative
105	Negative	Negative	Negative	Negative	Negative
106	Negative	Negative	Negative	Negative	Negative
107	Negative	Negative	Negative	Negative	Negative
109	Negative	Negative	Negative	Negative	Negative
124	Negative	Negative	Negative	Negative	Negative

125	Negative	Negative	Negative	Negative	Negative
126	Negative	Negative	Negative	Negative	Negative
138	Negative	Negative	Negative	Negative	Negative
147	Negative	Negative	Negative	Negative	Negative
149	Positive	Negative	Negative	Negative	Negative
159	Negative	Negative	Negative	Negative	Negative
160	Negative	Negative	Negative	Negative	Negative
166	Positive	Negative	Negative	Negative	Negative
168	Positive	Negative	Negative	Negative	Negative
177	Positive	Negative	Negative	Negative	Negative
179	Negative	Negative	Negative	Negative	Negative
182	Negative	Negative	Negative	Negative	Negative
185	Negative	Negative	Negative	Negative	Negative

Legend and specifications

[a]*H. pylori* status was defined by histopathology (standard histological examination with hematoxilin-eosin & giemsa stain), RUT and bacterial culture on Columbia agar plates under microaerophilic conditions. Patients were classified as *H. pylori*-infected if at least two of the gold standard tests were positives, otherwise they were considered *H. pylori*-noninfected [22].

[b] Patient sera samples were analyzed using a commercially available *H. pylori* IgG ELISA (IBL International, Hamburg, Germany), previously validated [26], according to the manufacturer's instructions.

Table S2. STROBE Statement—Checklist of items that should be included in reports of ***cross-sectional studies***

	Item No	Recommendation	Page number
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	2
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	2
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	2-3
Objectives	3	State specific objectives, including any prespecified hypotheses	3
Methods			
Study design	4	Present key elements of study design early in the paper	4
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	4
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants	4
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	4-6
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	5-7
Bias	9	Describe any efforts to address potential sources of bias	4-7
Study size	10	Explain how the study size was arrived at	4
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	7
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	7
		(*b*) Describe any methods used to examine subgroups and interactions	6
		(*c*) Explain how missing data were addressed	-
		(*d*) If applicable, describe analytical methods taking account of sampling strategy	-
		(*e*) Describe any sensitivity analyses	-
Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	8
		(b) Give reasons for non-participation at each stage	4
		(c) Consider use of a flow diagram	-
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	9
		(b) Indicate number of participants with missing data for each variable of interest	9
Outcome data	15*	Report numbers of outcome events or summary measures	8-12

Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	8-12
		(*b*) Report category boundaries when continuous variables were categorized	8-12
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	-
Other analyses	17	Report other analyses done—eg, analyses of subgroups and interactions, and sensitivity analyses	12
Discussion			
Key results	18	Summarise key results with reference to study objectives	12-14
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	13
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	12-14
Generalisability	21	Discuss the generalisability (external validity) of the study results	14
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	-

Note. The STROBE checklist of items included in cross-sectional studies were adapted of guideline published by von Elm E, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandenbroucke JP; STROBE Initiative. "The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) Statement: Guidelines for Reporting Observational Studies". Int J Surg. 2014;12:1495–9 (https://linkinghub.elsevier.com/retrieve/pii/S174391911400212X).

Table S3. Coefficient of variability average intra-assay and inter-assay using a panel of sera samples from seropositive *H. pylori*-cases and seronegative *H. pylori*-controls (n=46)

Variability intra-assay*					
Sample	Replicate 1	Replicate 2	Duplicate Mean	SD	CV%
1	0.085	0.091	0.088	0.003	3.41
2	0.091	0.075	0.083	0.008	9.64
3	0.103	0.066	0.085	0.019	21.89
4	0.087	0.069	0.078	0.009	11.54
5	0.089	0.079	0.084	0.005	5.95
6	0.100	0.080	0.090	0.010	11.11
7	0.088	0.074	0.081	0.007	8.64
8	0.092	0.074	0.083	0.009	10.88
9	0.129	0.126	0.128	0.002	1.18
10	0.138	0.117	0.128	0.011	8.24
11	0.117	0.112	0.115	0.003	2.18
12	0.143	0.118	0.131	0.013	9.58
13	0.138	0.133	0.136	0.003	1.85
14	0.159	0.111	0.135	0.024	17.78
15	0.134	0.124	0.129	0.005	3.88
16	0.137	0.120	0.129	0.008	6.50
17	0.134	0.074	0.104	0.030	28.85
18	0.137	0.074	0.105	0.032	29.91
19	0.085	0.126	0.106	0.021	19.43
20	0.091	0.117	0.104	0.013	12.50
21	0.103	0.112	0.108	0.005	4.19
22	0.129	0.091	0.110	0.019	17.27
23	0.138	0.075	0.107	0.032	29.58
24	0.654	0.813	0.734	0.080	10.84
25	0.653	0.784	0.719	0.066	9.12
26	0.622	0.826	0.724	0.102	14.09
27	0.606	0.777	0.692	0.086	12.36
28	0.631	0.788	0.710	0.079	11.06
29	0.625	0.770	0.698	0.073	10.39
30	0.628	0.737	0.683	0.055	7.99
31	0.619	0.817	0.718	0.099	13.79
32	0.630	0.786	0.708	0.078	11.01
33	1.155	1.105	1.130	0.025	2.21
34	1.161	1.063	1.112	0.049	4.41
35	1.093	1.095	1.094	0.001	0.09
36	1.178	1.092	1.135	0.043	3.79
37	1.120	1.083	1.102	0.019	1.68

38	1.099	1.032	1.066	0.034	3.14
39	1.209	1.114	1.162	0.048	4.09
40	1.172	1.119	1.146	0.027	2.31
41	1.147	1.085	1.116	0.031	2.78
42	1.770	1.973	1.872	0.102	5.42
43	1.743	2.009	1.876	0.133	7.09
44	1.729	1.906	1.818	0.088	4.87
45	1.652	1.891	1.772	0.120	6.75
46	1.705	1.936	1.821	0.116	6.34

*The Intra-Assay variability is reported as the average of the individuals CV and is calculated by

% CV = SD ÷ duplicate mean x 100

where:

SD- standard desviation of duplicates

CV- coefficient of variability

Intra-assay %CV (n=46) = average % CV = **9.4**

Variability Inter-assay**								
	Sample	Absorbance values		Plate	Mean	Mean of plates/day	SD	%CV
day 1	low	0.211	0.246	1	0.236	0.218	0.008	3.744
	low	0.232	0.254					
	low	0.187	0.215	2	0.213			
	low	0.22	0.229					
day 2	low	0.202	0.214	3	0.205			
	low	0.208	0.195					
	low	0.193	0.208	4	0.214			
	low	0.226	0.229					
day 3	low	0.233	0.244	5	0.217			
	low	0.292	0.097					
	low	0.092	0.102	6	0.225			
	low	0.6	0.106					
day 1	medium	0.651	0.616	1	0.622	0.652	0.037	5.728
	medium	0.63	0.589					
	medium	0.679	0.619	2	0.640			
	medium	0.578	0.682					
day 2	medium	0.626	0.667	3	0.705			
	medium	0.765	0.763					
	medium	0.759	0.783	4	0.710			
	medium	0.688	0.611					
day 3	medium	0.626	0.619	5	0.628			
	medium	0.628	0.639					
	medium	0.641	0.604	6	0.606			
	medium	0.573	0.606					
day 1	high	1.729	1.606	1	1.732	1.216	0.293	24.129
	high	1.723	1.868					
	high	1.479	1.594	2	1.581			
	high	1.618	1.631					
day 2	high	0.883	0.974	3	0.963			
	high	1.055	0.94					
	high	0.989	0.972	4	0.962			
	high	0.955	0.933					
day 3	high	1.003	0.902	5	0.997			
	high	1.025	1.059					
	high	1.12	1.068	6	1.061			
	high	1.048	1.008					

*The Inter-Assay variability is reported as the average of the high, medium and low % CV.

% CV = SD of plate means ÷ mean of plate/day x 100

Inter-assay %CV (n=6) = average of % CV= **11.2**