

ELISA kit measuring anti-*Helicobacter suis* antibody

■ Researcher Profile

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■ Research Ideas and Technological Seeds

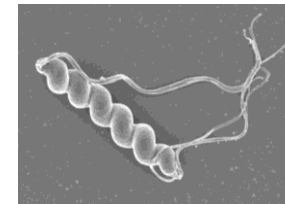
- **Non-*H. pylori* *Helicobacter* species (NHPH)**, including *Helicobacter suis*, are now recognized as pathogens capable of infecting the human stomach and causing gastric diseases.
- A culture method for isolating NHPH from human gastric samples has been recently established.
- Using cultured *H. suis* strains, we developed a serum antibody ELISA capable of detecting *H. suis* infection
- This ELISA demonstrated 100% sensitivity and 92.6% specificity, as reported in iScience (Matsui H, Rimbara E et al., 2023).

■ Background / Problem to be Solved

- *Helicobacter pylori* infection can be diagnosed using established clinical methods; however, non-*H. pylori* *Helicobacter* species (NHPH) cannot be detected using these conventional *H. pylori* diagnostic tests.
- The epidemiology and true prevalence of NHPH infections remain largely unclear, and there is a strong need for a non-invasive diagnostic method that does not require endoscopy.

■ Research Overview

Helicobacter suis



- *H. suis* infects the stomachs of pigs and non-human primates.
- In humans, infection can lead to gastric mucosa-associated lymphoid tissue (MALT) lymphoma and gastric/duodenal ulcers.
- Among NHPH infections reported in Japan, *H. suis* is the most frequently identified species.

■ Future plans

- Denka Co., Ltd. is currently advancing development toward launching a research-use reagent kit.
- A domestic patent has been granted (Applicants: NIID, Kitasato University, Denka Co., Ltd.).