Nucleotide sequence of two genes from *Helicobacter pylori* encoding for urease subunits

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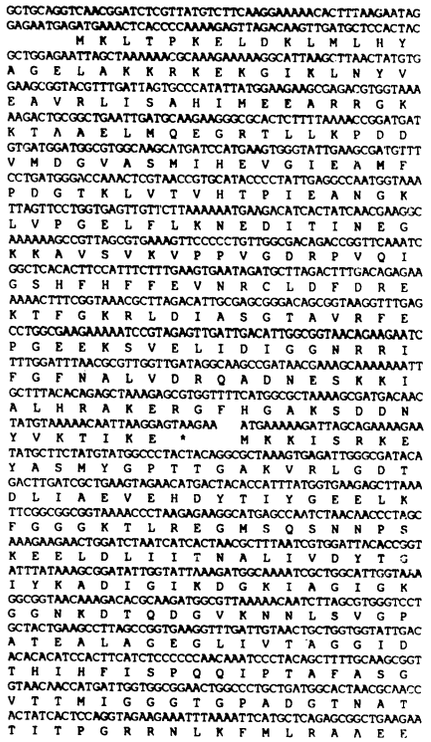
We have previously described the cloning of genes encoding the immunodominant urease subunits of *Campylobacter pylori* (now *Helicobacter pylori*)[1]. The nucleotide sequence of the cloned DNA contains two open reading frames, capable of encoding proteins of 26.657 kD (α-subunit) and 60.473 kD (β-subunit). The ORFs are separated by three nucleotides. The ATG start codons are preceded by Shine-Dalgarno consensus sequences. No promoter-like sequences have been identified. The coding regions have a 44% G+C content. The derived amino-acid sequences of the two ORFs are directly homologous to the single subunit urease of the jackbean[2] (57% sites identical), and a fragment of the soy bean urease[3]. The *H. pylori* urease contains a histidine-rich region which might contain the nickel-binding active site. The N-terminus of the β-subunit is homologous to the N-termini of the large subunits of the ureases of *Klebsiella aerogenes* (61% identity) and *Proteus mirabilis* (71% identity)[4].



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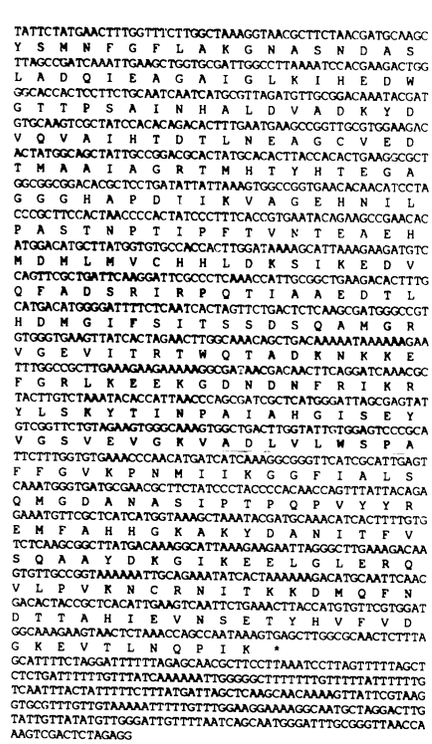

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