

Table 2: Overview of existing studies analysing the antimicrobial effects of EGCG against bacteria causing food-borne disease

Bacterium	Type of study	Antibacterial effects of EGCG	Reference
<i>Enterohemorrhagic Escherichia coli</i>	in vitro	Bactericidal, inhibition of shiga-toxin	Okubo S et al, 1998
<i>Helicobacter pylori</i>	in vitro and in vivo	Bactericidal at pH 7, but not at pH \leq 5; Eradication in 10 to 36% in infected Mongolian gerbils	Mabe et al, 1999
<i>Enterohemorrhagic Escherichia coli</i>	in vitro	0.05 mg/mL EGCG inhibits extracellular Shiga-toxin release	Sugita-Konishi et al, 1999
<i>Bacillus stearothermophilus</i> <i>Clostridium thermoaceticum</i>	in vitro	EGCG is antibactericidal and reduced heat resistance of spores	Sakanaka S et al, 2000
<i>Helicobacter pylori</i>	in vitro	MIC ₉₀ of EGCG was 100 μ g/mL; additive effects with amoxicillin, metronidazole and clarithromycin	Yanagawa et al, 2003
<i>Salmonella typhi</i>	in vitro	MIC > 100 μ g/mL	Yoshiyuki Y et al, 2004
<i>Bacillus cereus</i>	in vitro	EGCG is antibactericidal at nanomolar levels	Friedman M et al, 2006
<i>Enterohemorrhagic Escherichia coli</i>	in vitro and in vivo	25 μ g/mL EGCG decreased biofilm formation, swarm motility and autoinducer 2 concentration; higher survival rate (30%) of nematodes fed with EGCG than without	Lee KM et al, 2009
<i>Enterohemorrhagic Escherichia coli</i>	Atomic forced microscopy	Sub-MIC EGCG treatment of <i>E. coli</i> led to temporary changes of the cell walls (pore-like lesions, collapse), damages were caused by H ₂ O ₂ generated from EGCG	Cui Y et al, 2012

MIC: minimum inhibitory concentration