

Enterobacteriaceae

Revised 6/21/2018

The Enterobacteriaceae are a large family of bacteria, including many of the more familiar pathogens, such as *Salmonella*, *Shigella* and *Escherichia coli*.

Members of the Enterobacteriaceae are bacilli (rod-shaped), facultative anaerobes, fermenting sugars to produce lactic acid and various other end products. They are typically 1-5 µm in length and they have Gram-negative stains. Most have many flagella used to move about, but a few genera are non-motile. They do not form spores. Most members of Enterobacteriaceae have fimbriae involved in the adhesion of the bacterial cells to their hosts.

The following is a partial list of Enterobacteriaceae. Those with an * are described in detail in their respective sections.

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|----------------------|----------------------|------------------------|-----------------------|-----------------------|------------------|
| <i>Alishewanella</i> | <i>Buttiauxella</i> | <i>Grimontella</i> | <i>Pectobacterium</i> | <i>Salmonella</i> * | <i>Yokenella</i> |
| <i>Alterococcus</i> | <i>Cedecea</i> | <i>Hafnia</i> | <i>Phlomobacter</i> | <i>Samsonia</i> | |
| <i>Aquamonas</i> | <i>Citrobacter</i> | <i>Klebsiella</i> * | <i>Photorhabdus</i> | <i>Serratia</i> | |
| <i>Aranicola</i> | <i>Cronobacter</i> | <i>Kluyvera</i> | <i>Poodoomaamaana</i> | <i>Shigella</i> * | |
| <i>Arsenophonus</i> | <i>Dickeya</i> | <i>Leclercia</i> | <i>Plesiomonas</i> | <i>Sodalis</i> | |
| <i>Azotivirga</i> | <i>Edwardsiella</i> | <i>Leminorella</i> | <i>Pragia</i> | <i>Tatumella</i> | |
| <i>Blochmannia</i> | <i>Enterobacter</i> | <i>Moellerella</i> | <i>Proteus</i> | <i>Trabulsiella</i> | |
| <i>Brenneria</i> | <i>Erwinia</i> | <i>Morganella</i> | <i>Providencia</i> | <i>Wigglesworthia</i> | |
| <i>Buchnera</i> | <i>Escherichia</i> * | <i>Obesumbacterium</i> | <i>Rahnella</i> | <i>Xenorhabdus</i> | |
| <i>Budvicia</i> | <i>Ewingella</i> | <i>Pantoea</i> | <i>Raoultella</i> | <i>Yersinia</i> * | |

Epidemiology

Many members of this family are a normal part of the gut flora found in the intestines of humans and other animals, while others are found in water or soil, or are parasites on a variety of different animals and plants.

Antibiotic Resistance Genes

Enterobacteriaceae have been found to harbor several antibiotic resistance genes.

MCR 1

The "mobilized colistin resistance" (*mcr-1*) gene confers plasmid-mediated resistance to colistin, a polymyxin, and one of a number of last-resort antibiotics for treating infections. The gene is found in several species of the Enterobacteriaceae: *Escherichia coli*, *Salmonella*, *Klebsiella*