

**J. Bacteriol. 182, 1154-1157(2000).**

Covalent linkage of polyamines to peptidoglycan in *Anaerovibrio lipolytica*.

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Spermidine and cadaverine were found to be constituents of the cell wall peptidoglycan of *Anaerovibrio lipolytica*, a strictly anaerobic bacterium. The peptidoglycan was degraded with N-acetylmuramyl-L-alanine amidase and endopeptidase into two peptide fragments, peptide and were identified as L-alanine-D-glutamic acid ( cadaverine) meso-diaminopimelic acid (DAP)-D-alanine and L-alanine-D-glutamic acid ( spermidine) meso-DAP-D-alanine, respectively. The N(1)-amino group of spermidine was linked to the -carboxyl group of the D-glutamic acid residue of peptide .