Toussaintine A (N-cinnamoyl-5,6-dehydro-4-hydroxyindolidin-2,7-dione), toussaintine B (N-cinnamoyl-5,6-dehydro-4,7-dihydroxyindolidin-2-one), toussaintine C (N-cinnamoyl-5,6-dehydro-4-hydroxyindolidin-7-one), toussaintine D (N-cinnamoyl-2-amino-4-hydroxy-7-oxo-2,3,8,9-tetrahydrobenzofuran) and toussaintine E (N-cinnamoyl-1-acetoxymethyl-2-amino-1-hydroxycyclox-5-en-4-one) were isolated as antibacterial and antifungal constituents of the leaves of Toussaintia orientalis Verdc. (Annonaceae) and their structures established from analysis of spectroscopic data. The compounds belong to a series of variously cyclized aminocinnamoyl tetraketide derivatives, showing the importance of rarely occurring Annonaceae species as sources of structurally diverse natural products.