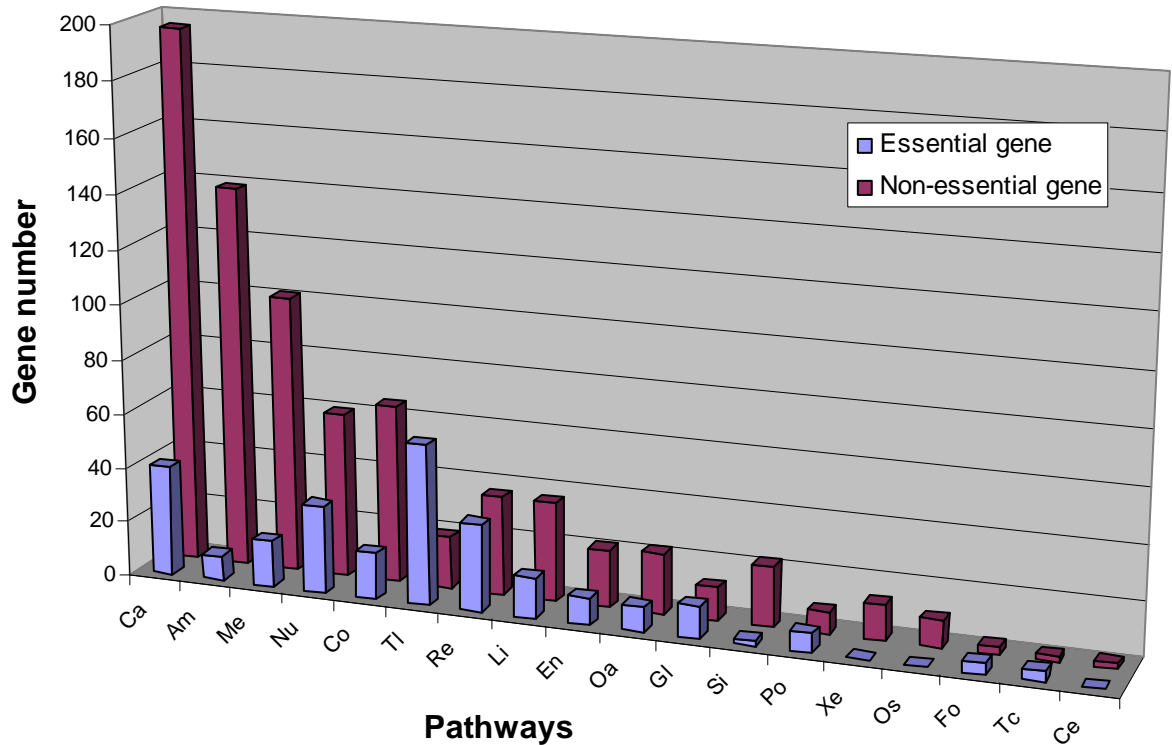


## Essential Gene Distribution



**Figur S2 Pathway distribution of essential and non-essential genes in *S. sanguinis*.**

Genes were classified based on KEGG Pathway Maps. Some genes may have multiple assignments when they involve in different pathways. Ca, Carbohydrate Metabolism; Am, Amino Acid Metabolism; Me, Membrane Transport; Nu, Nucleotide Metabolism; Co, Metabolism of Cofactors and Vitamins; Tl, Translation; Re, Replication and Repair; Li, Lipid Metabolism; En, Energy Metabolism; Oa, Metabolism of Other Amino Acids; Gl, Glycan Biosynthesis and Metabolism; Si, Signal Transduction; Po, Metabolism of Terpenoids and Polyketides; Xe, Xenobiotics Biodegradation and Metabolism; Os, Biosynthesis of Other Secondary Metabolites; Fo, Folding, Sorting and Degradation; Tc, Transcription; Ce, Cell Motility. Some genes involved in multiple pathways were included in each pathway.