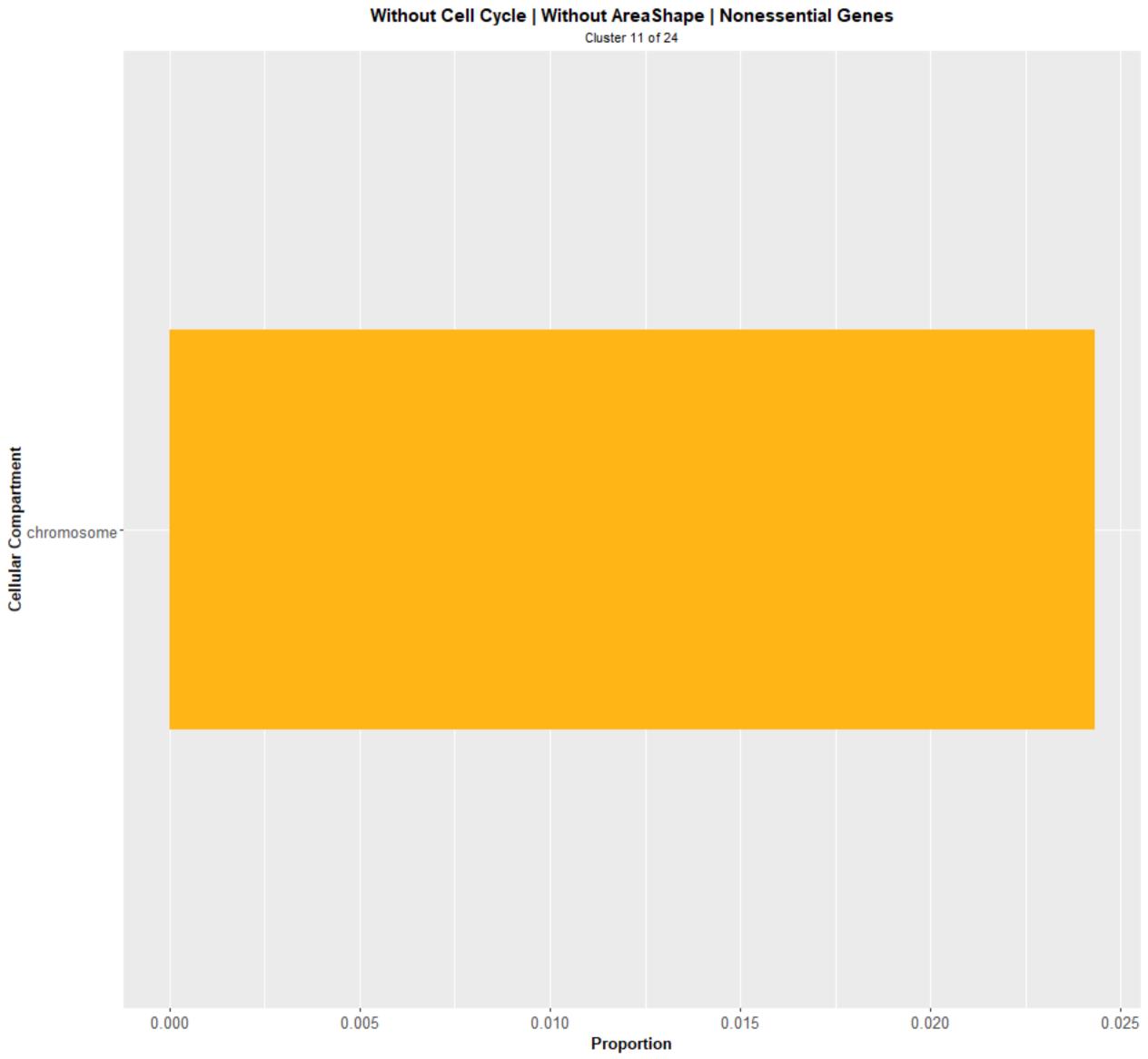


#### Without Cell Cycle | Without AreaShape | Nonessential Genes Cluster 1 of 24 nucleobase-containing small molecule metabolic process mitochondrion organization mitochondrial translation -**Biological Process** generation of precursor\_ metabolites and energy cofactor metabolic process carbohydrate metabolic process 0.050 0.000 0.025 0.075 Proportion

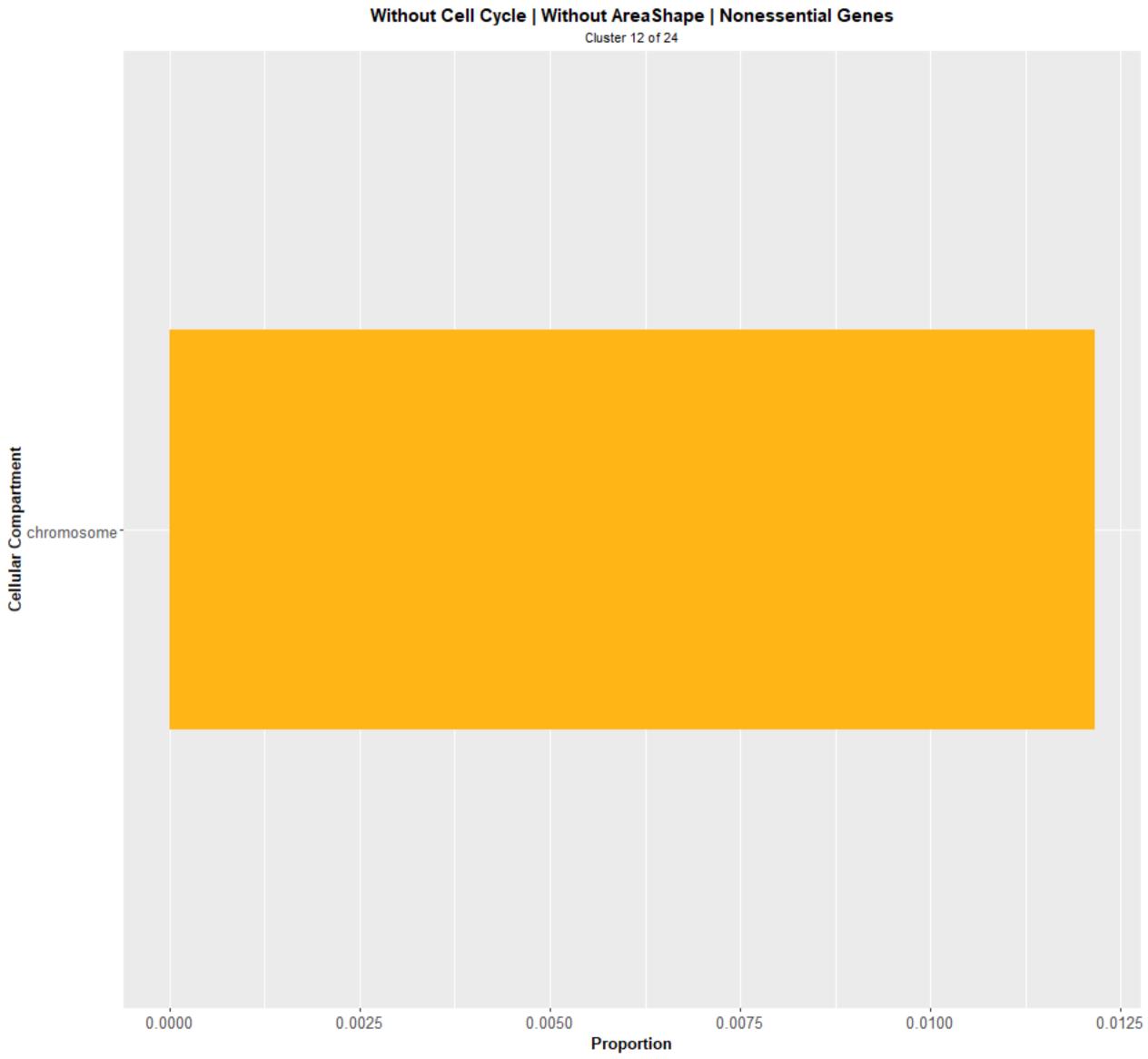
#### Without Cell Cycle | Without AreaShape | Nonessential Genes Cluster 4 of 24 response to starvation -Biological Process cell wall organization or \_ biogenesis 0.01 0.02 0.03 0.04 0.05 0.00 Proportion

## Without Cell Cycle | Without AreaShape | Nonessential Genes Cluster 7 of 24 protein alkylation -Biological Process histone modification -0.00 0.05 0.10 0.15 Proportion

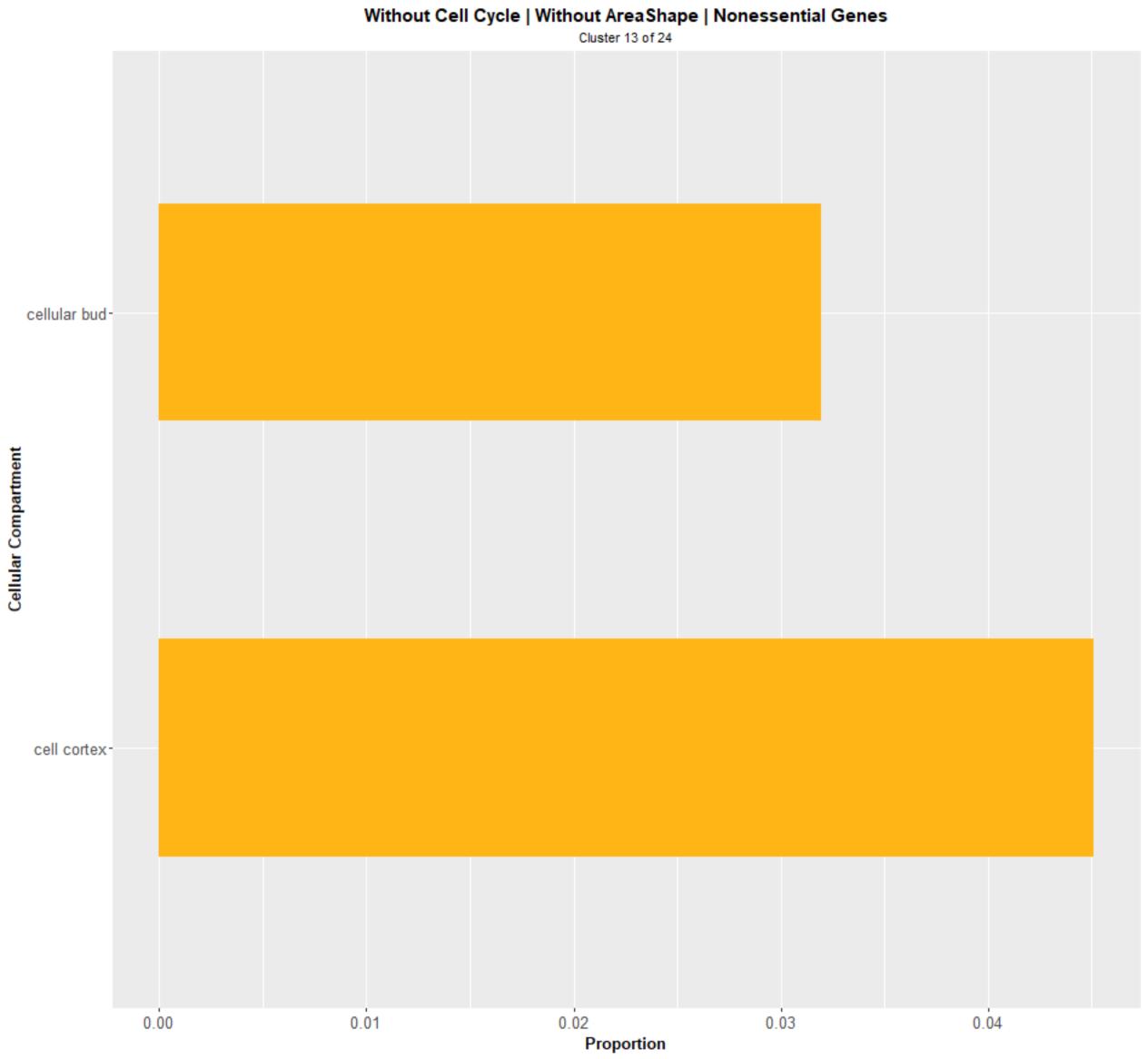
## Without Cell Cycle | Without AreaShape | Nonessential Genes Cluster 8 of 24 Biological Process 0.02 0.04 0.00 0.06 0.08 Proportion



Proportion

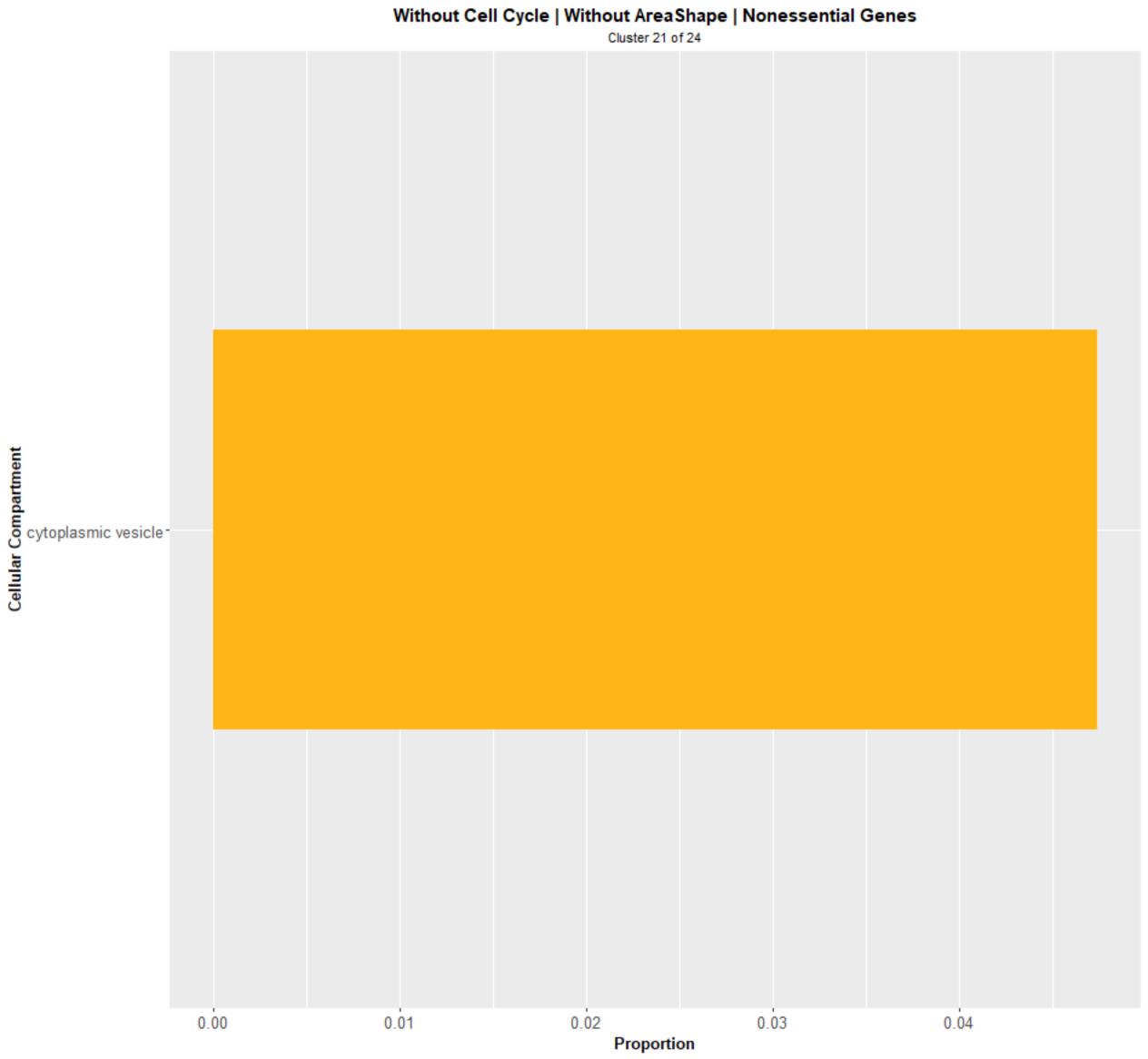


#### Without Cell Cycle | Without AreaShape | Nonessential Genes Cluster 12 of 24 transposition -RNA catabolic process regulation of DNA metabolic\_ process regulation of cell cycleprotein acylation -Biological Process organelle fission mitotic cell cycle -DNA replication -DNA repair chromosome segregation cellular response to DNA damage stimulus 0.00 0.05 0.10 0.15 Proportion



#### Without Cell Cycle | Without AreaShape | Nonessential Genes Cluster 18 of 24 transcription from RNA polymerase II promoter transcription from RNA polymerase I promoter Protein phosphorylation endosomal transport cytoplasmic translation chromatin organization 0.00 0.05 0.10 0.15 Proportion

## Without Cell Cycle | Without AreaShape | Nonessential Genes Cluster 20 of 24 response to chemicalprotein modification by small\_protein conjugation or removal lipid metabolic process 0.01 0.02 0.00 0.03 Proportion



Without Cell Cycle | Without AreaShape | Nonessential Genes Cluster 21 of 24 pseudohyphal growth Biological Process protein targeting protein modification by small\_ protein conjugation or removal 0.04 0.00 0.02 0.06 Proportion

#### Without Cell Cycle | Without AreaShape | Nonessential Genes Cluster 22 of 24 vacuole organization organelle fission -Biological Process mitotic cell cycle cytokinesis -0.04 0.02 0.08 0.08 0.00 Proportion

# Without Cell Cycle | Without AreaShape | Nonessential Genes Cluster 23 of 24 Biological Process Liposomal large subunit piogenesis 0.00 0.01 0.02 0.03 Proportion

## Without Cell Cycle | Without AreaShape | Nonessential Genes Cluster 24 of 24 signaling -Biological Process conjugation ⁻ 0.04 0.00 0.02 0.06 Proportion