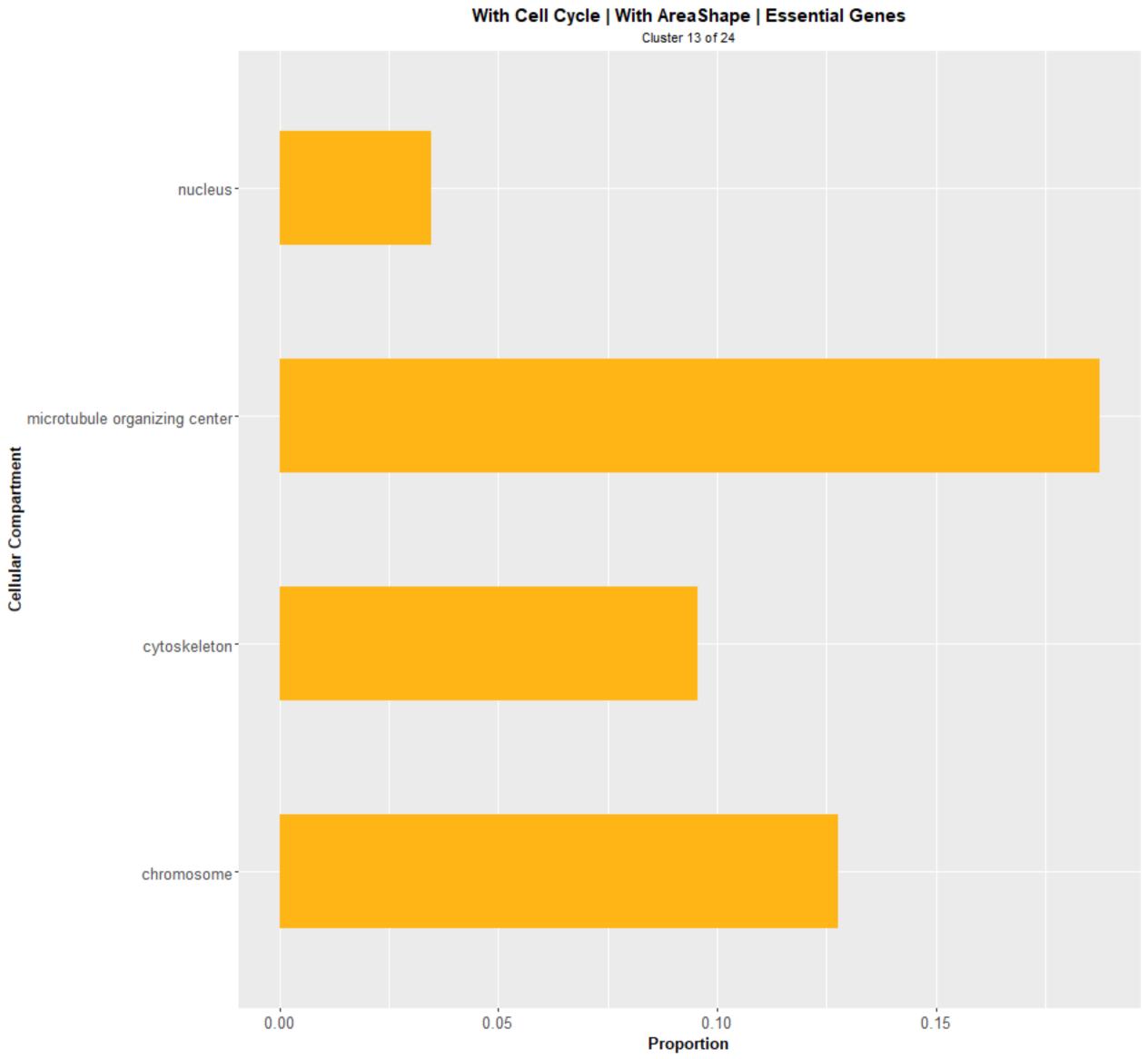
With Cell Cycle | With AreaShape | Essential Genes Cluster 6 of 24 nucleus-Cellular Compartment nucleolus-0.01 0.02 0.00 Proportion

With Cell Cycle | With AreaShape | Essential Genes Cluster 6 of 24 transcription from RNA polymerase III promoter Biological Process transcription from RNA polymerase I promoter 0.04 0.00 0.02 0.06 Proportion

With Cell Cycle | With AreaShape | Essential Genes Cluster 8 of 24 transcription from RNA polymerase II promoter Biological Process DNA-templated transcription, initiation 0.00 0.02 0.04 0.06 Proportion

With Cell Cycle | With AreaShape | Essential Genes Cluster 12 of 24 nucleus-Cellular Compartment nucleolus-0.01 0.03 0.00 0.02 0.04 Proportion

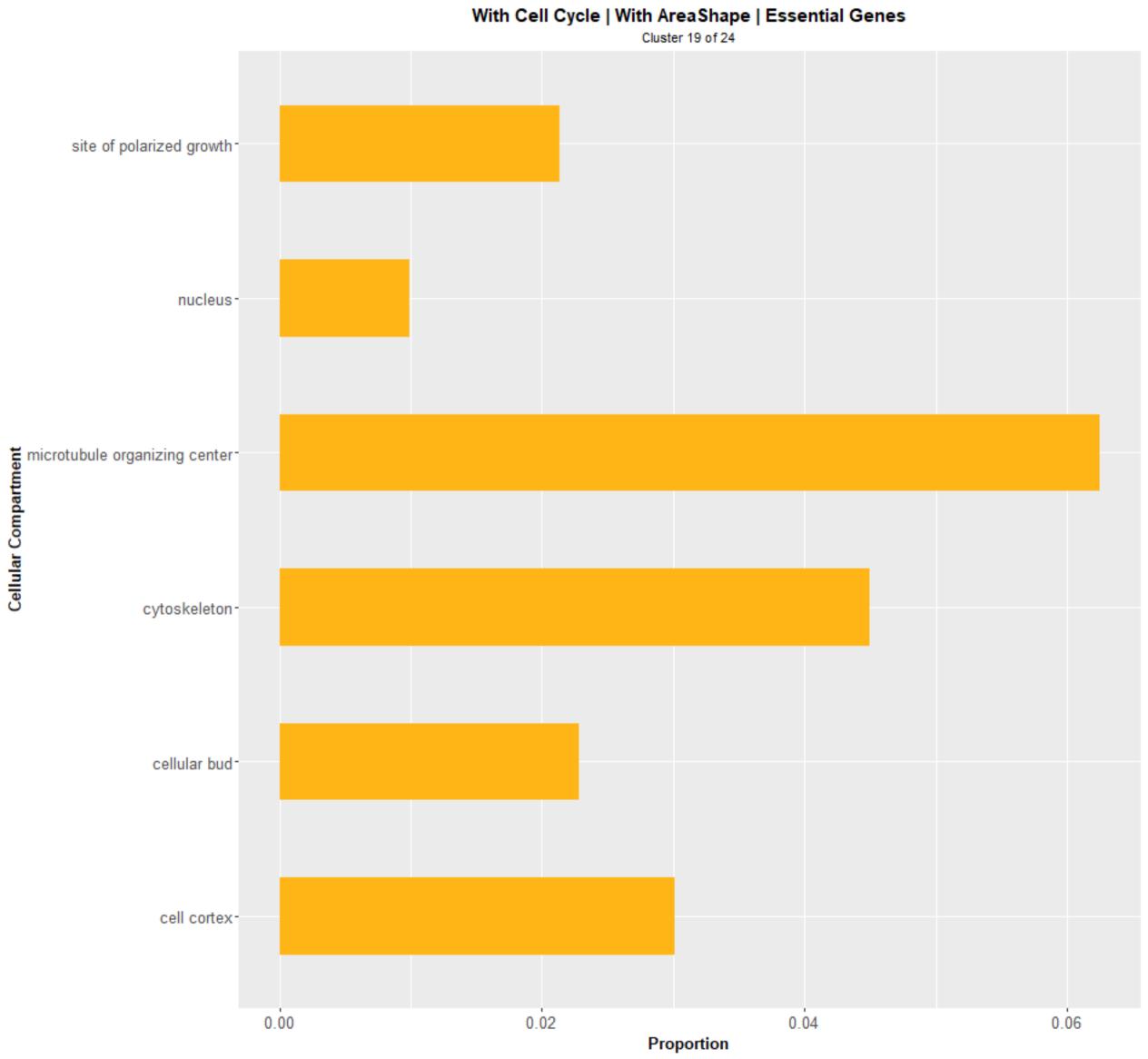
With Cell Cycle | With AreaShape | Essential Genes Cluster 12 of 24 rRNA processing -Biological Process ribosome assembly ribosomal large subunit_ biogenesis 0.00 0.02 0.04 0.08 Proportion



With Cell Cycle | With AreaShape | Essential Genes Cluster 13 of 24 telomere organization regulation of organelle_ organization regulation of DNA metabolic_ process regulation of cell cycleproteolysis involved in cellular protein catabolicprocess protein modification by small protein conjugation or removal protein complex biogenesis **Biological Process** organelle fission mitotic cell cycle meiotic cell cycle -DNA replication -DNA repair DNA recombination cytoskeleton organization chromosome segregation cellular response to DNA damage stimulus 0.10 0.05 0.15 0.20 0.00 Proportion

With Cell Cycle | With AreaShape | Essential Genes Cluster 17 of 24 nucleus-Cellular Compartment nucleolus-0.02 0.04 0.06 0.00 Proportion

With Cell Cycle | With AreaShape | Essential Genes Cluster 17 of 24 tRNA aminoacylation for _ protein translation transcription from RNA polymerase III promoter rRNA processing -RNA splicing ribosomal subunit export from nucleus Biological Process ribosomal small subunit biogenesis ribosomal large subunit biogenesis nuclear transport mRNA processing -DNA repair DNA-templated transcription, termination cytoskeleton organization -0.00 0.05 0.10 0.15 Proportion



With Cell Cycle | With AreaShape | Essential Genes Cluster 19 of 24 transcription from RNA_ polymerase III promoter ribosomal subunit export from nucleus proteolysis involved in cellular protein catabolicprocess Biological Process organelle fission organelle assembly mitotic cell cyclecytoskeleton organization cytokinesis -0.04 0.00 0.02 0.06 0.08 Proportion

With Cell Cycle | With AreaShape | Essential Genes Cluster 20 of 24 nucleus -Cellular Compartment nucleolus chromosome-0.01 0.00 0.02 Proportion

With Cell Cycle | With AreaShape | Essential Genes Cluster 20 of 24 snoRNA processing -Biological Process rRNA processing -0.04 0.02 0.00 0.08 Proportion

With Cell Cycle | With AreaShape | Essential Genes Cluster 22 of 24 site of polarized growthnucleus membrane -Cellular Compartment Golgi apparatus endoplasmic reticulum endomembrane systemcytoplasmic vesicle chromosome-0.05 0.10 0.00 Proportion

With Cell Cycle | With AreaShape | Essential Genes Cluster 22 of 24 vesicle organization translational initiation transcription from RNA polymerase II promoter snoRNA processing -RNA splicing ribosomal subunit export from nucleus proteolysis involved in cellular protein catabolicprotein targeting protein lipidation protein complex biogenesis **Biological Process** peptidyl-amino acid_ modification organelle inheritance organelle fusion nucleobase-containing compound_ transport nuclear transport mRNA processing membrane fusion lipid metabolic process Golgi vesicle transport exocytosis -DNA-templated transcription, termination DNA-templated transcription, initiation DNA-templated transcription, elongation cytoskeleton organization -0.0 0.2 0.1 0.3 0.4 Proportion