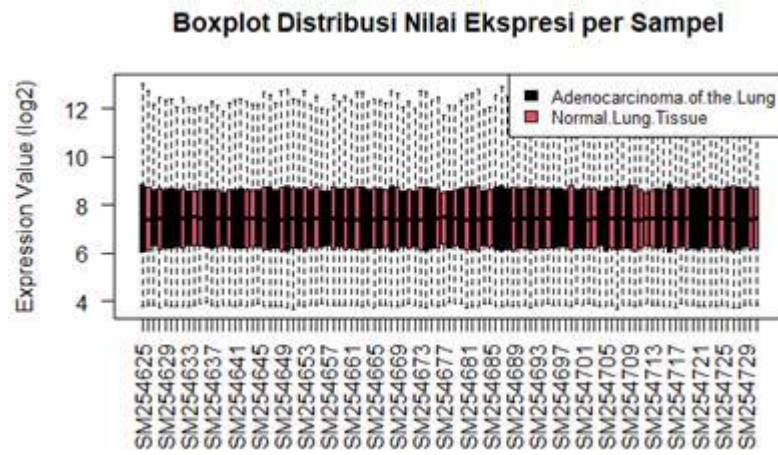


NAMA : SANDRA PUTRI PERTIWI

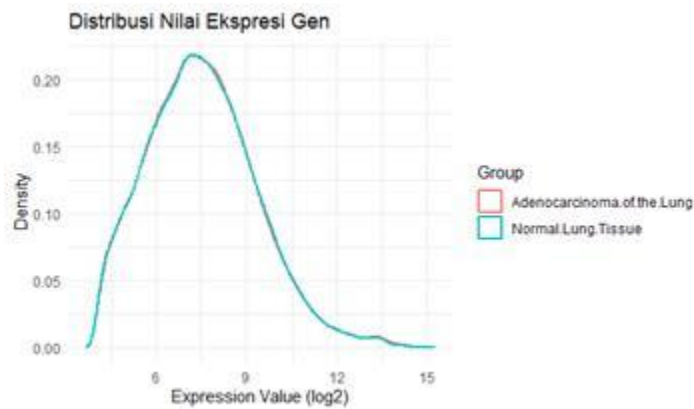
HASIL VISUALISASI ANALISIS DATASET GSE10072

LAMPIRAN

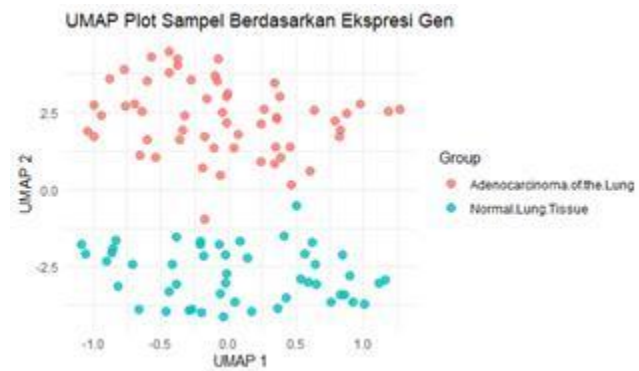
- **Lampiran 1:** Visualisasi BoxPlot



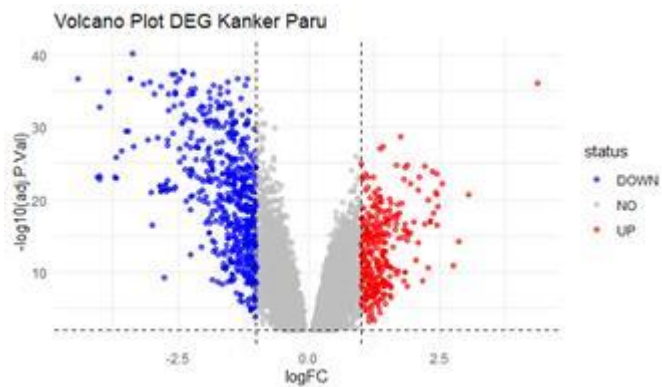
- **Lampiran 2:** Visualisasi Distribusi Nilai Ekspresi Gen



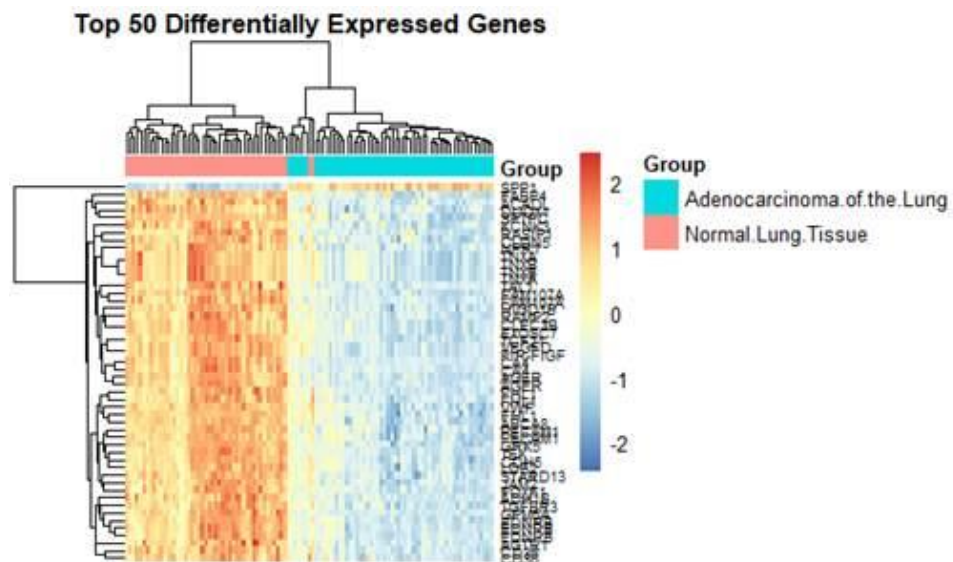
- **Lampiran 3: Visualisasi UMAP**



- **Lampiran 4: Visualisasi Volcano Plot**



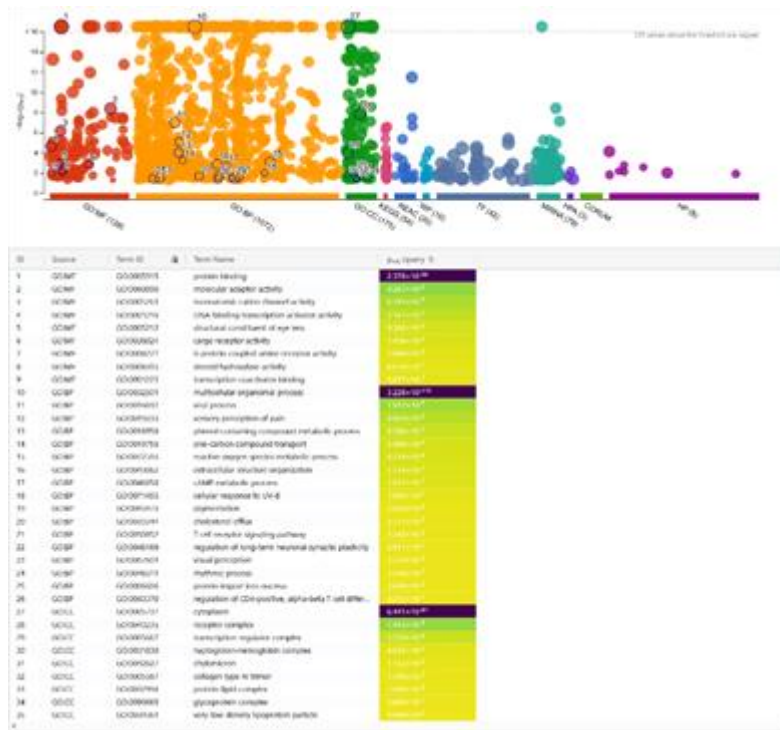
- **Lampiran 5: Visualisasi Heatmap**



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- Figure 1: Heatmap of gene expression data for 100 genes across 10 conditions. The heatmap shows expression levels on a scale from 0 (blue) to 100 (red). The genes are grouped into three clusters: Cluster 1 (top), Cluster 2 (middle), and Cluster 3 (bottom). The conditions are grouped into three clusters: Cluster 1 (left), Cluster 2 (middle), and Cluster 3 (right). The heatmap is color-coded by gene cluster and condition cluster.

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- The diagram illustrates the cell cycle signaling pathways, organized into four main phases: G1, S, G2, and M. Key components and interactions include:
- G1 Phase:** Growth factor and growth factor withdrawal regulate the SCF ubiquitin pathway, which targets cyclins like *CycE* and *CycD*. Cyclins *CycE* and *CycD* form complexes with CDKs (e.g., *Cdk2*, *Cdk4*, *Cdk6*) to drive the cell cycle.
 - S Phase:** S-phase proteins (e.g., *PCNA*, *TopoII*) are involved in DNA replication. The SCF ubiquitin pathway continues to regulate cyclin levels.
 - G2 Phase:** DNA replication is completed, and the cell prepares for mitosis. Key proteins include *CycB*, *CycA*, and *Cdk1*.
 - M Phase:** Chromosome-mediated processes (e.g., *APC/C*, *Securin*) lead to the degradation of cyclins, allowing the cell to exit mitosis and return to G1.
 - Checkpoints:** DNA damage checkpoints (e.g., *ATM*, *ATR*, *Chk1*, *Chk2*) and the spindle checkpoint (e.g., *Mad*, *Bub*) ensure genomic stability by halting the cycle in response to errors.
- The diagram uses color-coding: green for G1/S phase proteins and red for G2/M phase proteins. Arrows indicate activation (+) or inhibition (-) of downstream targets.

- **Lampiran 8:** Visualisasi analisis Gene Ontology (GO) pada Gen Down-Regulated



- **Lampiran 9:** Visualisasi pathway KEGG Mapper pada Gen Down-Regulated (Tight Junction)

