

(a).

A heatmap visualization of gene expression data. The x-axis represents genes, and the y-axis represents samples. A dendrogram at the top shows hierarchical clustering of samples, while a dendrogram on the left shows clustering of genes. A color scale on the right indicates expression levels from 0 (yellow) to 4 (dark red). The genes listed on the x-axis are: TNF-1, PTPRC-3, PTPRC-4, ANPEP, CCL3, CCL2, CCL4, CCL5, CCL6, CCL7, CCL8, CCL9, CCL10, CCL11, CCL12, CCL13, CCL14, CCL15, CCL16, CCL17, CCL18, CCL19, CCL20, CCL21, CCL22, CCL23, CCL24, CCL25, CCL26, CCL27, CCL28, CCL29, CCL30, CCL31, CCL32, CCL33, CCL34, CCL35, CCL36, CCL37, CCL38, CCL39, CCL40, CCL41, CCL42, CCL43, CCL44, CCL45, CCL46, CCL47, CCL48, CCL49, CCL50, CCL51, CCL52, CCL53, CCL54, CCL55, CCL56, CCL57, CCL58, CCL59, CCL60, CCL61, CCL62, CCL63, CCL64, CCL65, CCL66, CCL67, CCL68, CCL69, CCL70, CCL71, CCL72, CCL73, CCL74, CCL75, CCL76, CCL77, CCL78, CCL79, CCL80, CCL81, CCL82, CCL83, CCL84, CCL85, CCL86, CCL87, CCL88, CCL89, CCL90, CCL91, CCL92, CCL93, CCL94, CCL95, CCL96, CCL97, CCL98, CCL99, CCL100, CCL101, CCL102, CCL103, CCL104, CCL105, CCL106, CCL107, CCL108, CCL109, CCL110, CCL111, CCL112, CCL113, CCL114, CCL115, CCL116, CCL117, CCL118, CCL119, CCL120, CCL121, CCL122, CCL123, CCL124, CCL125, CCL126, CCL127, CCL128, CCL129, CCL130, 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