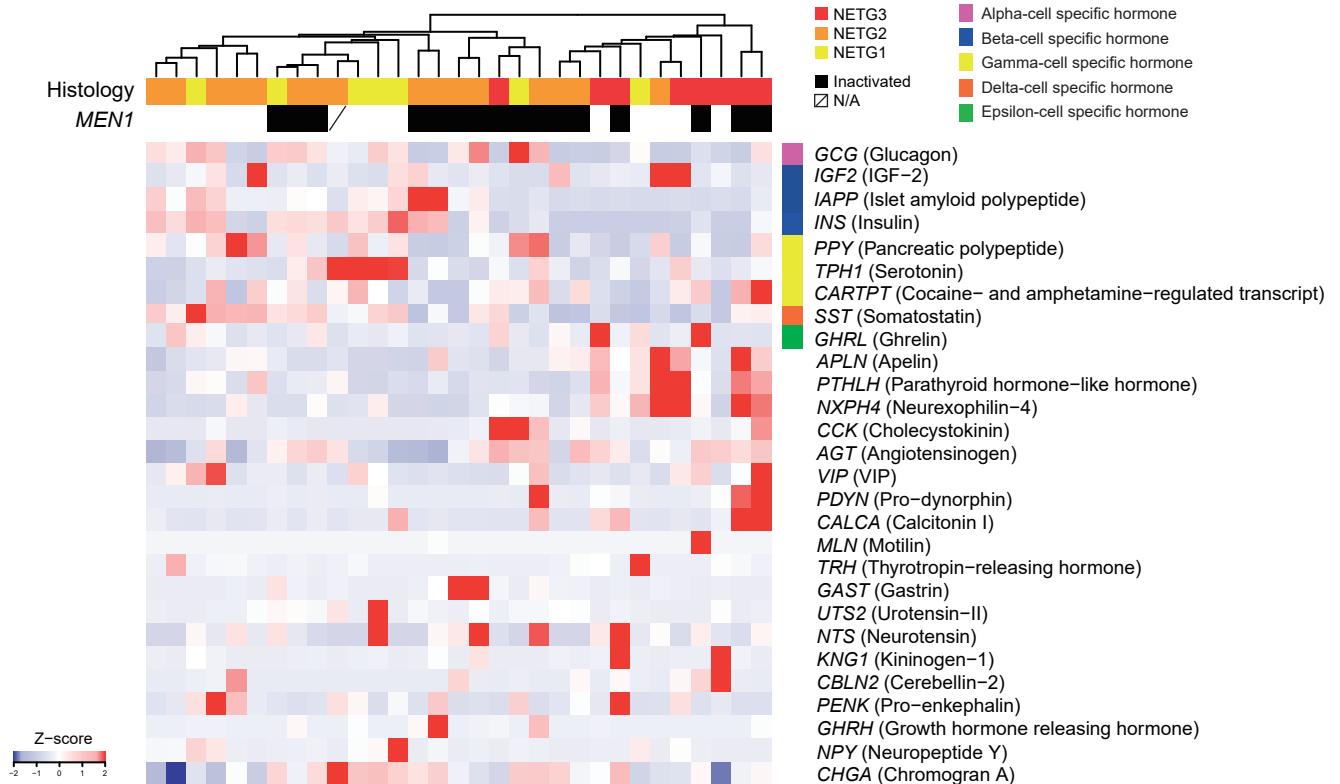


# Supplementary Figure S14. RNA expression of neuropeptides in Panc-NETs.



To assess comprehensive neuropeptide production in Panc-NET, expression of RNAs encoding 94 neuropeptides listed in the database (<http://www.neuropeptides.nl/>) and *TPH1* (Tryptophan hydroxylase 1, serotonin) were extracted from RNA-seq data and 27 high variant neuropeptides and *TPH1* (standard deviation of TPM > 3.0 among Panc-NETs) were selected for further analysis. Clinically, the Panc-NETs in this study were diagnosed as non-functional tumors. The histology (NETG1/G2/G3) and the status of *MEN1* are indicated at the top. A heatmap of Z-transformed gene expression of 27 neuropeptides and *TPH1* reveals heterogenous expression of various neuropeptides and *TPH1*, in which neuropeptides originally not produced in pancreas are included. *GCG* (Glucagon) is a marker gene of Alpha cells, *IGF2* (IGF-2), *IAPP* (islet amyloid polypeptide), and *INS* (Insulin) of Beta cells, *PPY* (Pancreatic polypeptide), *TPH1*, and *CARTPT* (Cocaine-and amphetamine-regulated transcript) of Gamma cells, *SST* (Somatostatin) of Delta cells, and *GHRL* (Ghrelin) of Epsilon cells (<https://doi.org/10.1093/biomet/bpz019>). Panc-NETs overexpressing each marker gene tended to be mutually exclusive. Several studies classified Panc-NETs only into Alpha-cell-like or Beta-cell like tumors (13), but our findings suggest it is possible that cell transdifferentiation and/or dedifferentiation occur partially during Panc-NET genesis and progression.