



NTP Nonneoplastic Lesion Atlas

Pancreatic Islet - Hypoplasia

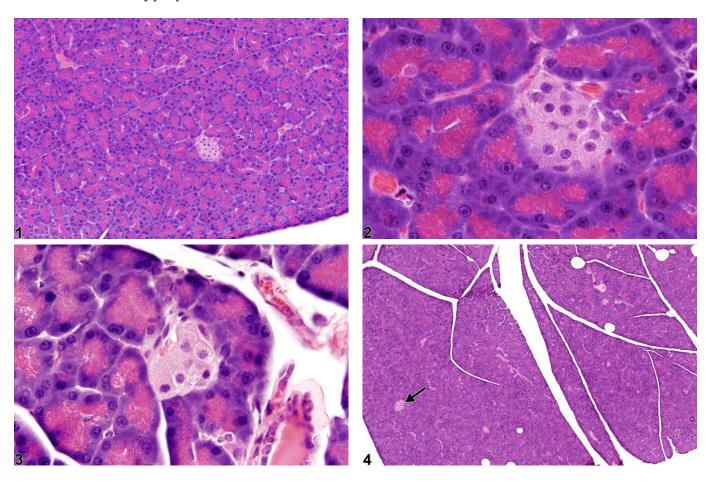


Figure Legend: Figure 1 Pancreatic islet - hypoplasia. One small hypoplastic islet is present in the pancreas in a female F344/N rat from a chronic study. **Figure 2** Pancreatic islet - hypoplasia. Higher magnification of the hypoplastic islet shown in Figure 1 in a female F344/N rat from a chronic study. **Figure 3** Pancreatic islet - hypoplasia. Another hypoplastic islet in the same female F344/N rat from a chronic study as shown in Figures 1 and 2. **Figure 4** Pancreatic islet - hypoplasia. Islet hypoplasia diagnosed in a treated female F344/N rat from a chronic study: only a single hypoplastic islet (arrow) is present within a large sampling of pancreas.

Comment: Islet cell hypoplasia is considered a congenital change. In cases of islet cell hypoplasia, typically one or two hypoplastic islets are the only islets present in the section (e.g., only two hypoplastic islets in Figure 1, Figure 2, and Figure 3 and one hypoplastic islet in Figure 4). An adequate





NTP Nonneoplastic Lesion Atlas

Pancreatic Islet - Hypoplasia

section is necessary to confirm this diagnosis since islet size and density vary by region within the pancreas.

Recommendation: Hypoplasia of the pancreatic islets should be diagnosed and given a severity grade whenever present.

References:

Riley MGI, Boorman GA, Hayashi Y. 1990. Endocrine pancreas. In: Pathology of the Fischer Rat: Reference and Atlas (Boorman GA, Eustis SL, Elwell MR, Montgomery CA, MacKenzie WF, eds). Academic Press, San Diego, 545-553.

Abstract: http://www.ncbi.nlm.nih.gov/nlmcatalog/9002563

Authors:

Robert R. Maronpot, DVM, MS, MPH, DACVP, DABT, FIATP Senior Pathologist Experimental Pathology Laboratories, Inc. Research Triangle Park, NC

Georgette D. Hill, DVM. PhD Toxicologic Pathologist/Assistant Pathology Program Manager Integrated Laboratory Systems, Inc. Research Triangle Park, NC