

NTP Nonneoplastic Lesion Atlas

Salivary Gland – Karyomegaly

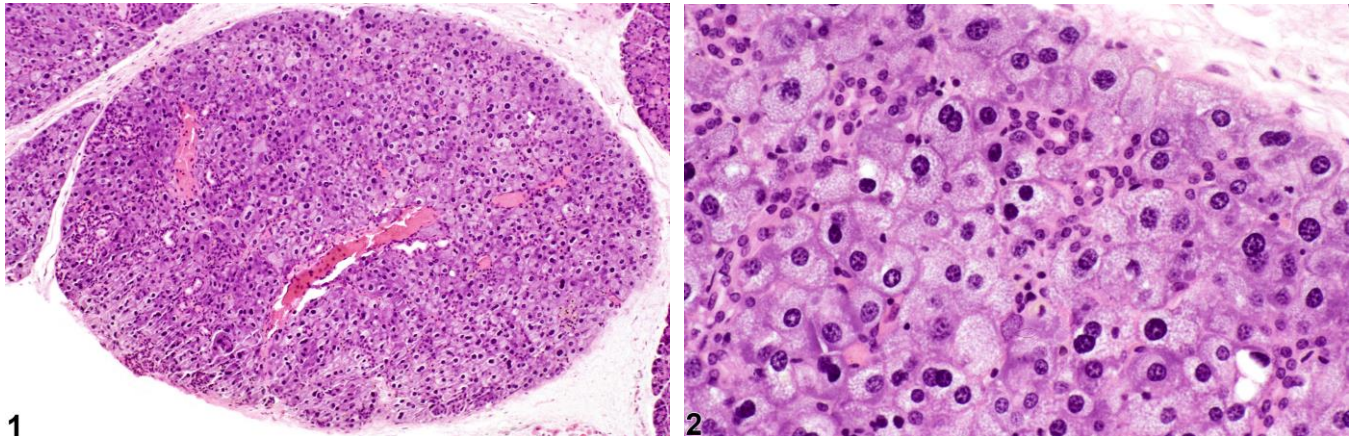


Figure Legend: **Figure 1** Salivary gland - Karyomegaly in a male B6C3F1 mouse from a chronic study. The nuclei in the acinar cells are enlarged. **Figure 2** Salivary gland - Karyomegaly in a male B6C3F1 mouse from a chronic study (higher magnification of Figure 1). The nuclei in the acinar cells are enlarged.

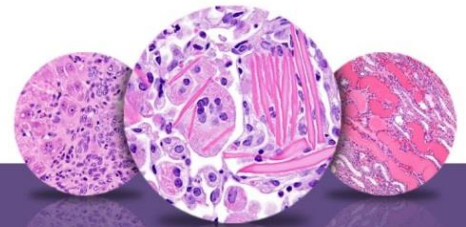
Comment: Karyomegaly (enlarged nuclei) is an uncommon finding in NTP studies. The enlarged nuclei may make the entire cell appear to be enlarged. In NTP studies, karyomegaly in the salivary glands has been seen in control and treated F344/N and Osborne Mendel rats and a single B6C3F1 mouse (Figure 1 and Figure 2). Enlarged nuclei can also be seen in basophilic hypertrophic foci, although they may be obscured by the basophilic cytoplasm.

Recommendation: Whenever present, this change should be diagnosed and graded based on the size of the nuclei and the number of nuclei affected. Karyomegaly within basophilic hypertrophic foci or within proliferative lesions should not be diagnosed separately. If the entire cell is enlarged (including the nucleus), the pathologist will have to use his or her judgment as to whether karyomegaly or hypertrophy (or both) would be most appropriate diagnosis.

References:

Jackson CD, Blackwell BN. 1991. Subchronic studies of tripeleminamine in B6C3F1 mice. *Int J Toxicol* 10:503-510.

Abstract: <http://ijt.sagepub.com/content/10/5/503.abstract>



NTP Nonneoplastic Lesion Atlas

Salivary Gland – Karyomegaly

References:

Neuenschwander SB, Elwell MR. 1990. Salivary glands. In: Pathology of the Fischer Rat (Boorman GA, Montgomery CA, MacKenzie WF, eds). Academic Press, San Diego, CA, 31-42.

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

Authors:

Linda H. Kooistra, DVM, PhD, DACVP
Pathologist
Charles River Laboratories, Inc.
Research Triangle Park, NC

Abraham Nyska, DVM, Diplomate ECVP, Fellow IATP
Expert in Toxicologic Pathology
Visiting Full Professor of Pathology
Sackler School of Medicine, Tel Aviv University
Timrat Israel