Burkitt Lymphoma PDX model (PNX0255)

Xenograft tumor sheet

Model characteristics

The R2G2 model is a double knockout mouse with an ultra immunodeficient phenotype. The model was created by backcrossing the Il2rg (common gamma chain) mutation on to a mixed background mouse (C57BL/6 and 129 mix) with a mutation in Rag2.

The recombination activating gene 2 (Rag2) interruption causes a deficiency in T and B cells.

The common gamma chain gene (Il2rg) interruption results in a lack of functional receptors for IL-2, IL-4, IL-7, IL-9 and IL-15.

Envigo acquired from Fox Chase Cancer Center in 2016, where the model had been maintained since 2005. The model is a white-bellied, light chinchilla (light tan).

Patient-derived xenograft (PDX) model

Animals were implanted subcutaneously in both flanks using 200 ul of 1:1 mixture of matrigel and minced tumor fragments resected from F1 generation of PNX0255 mice.

Tumor growth in vivo

The take rate and tumor growth of F2 generation of Burkitt Lymphoma PDX model PNX0255 was compared in two C.B-17 SCID and two Rag2xIl2Rg double knockout (R2G2) 5-8 weeks old mice.

The mice were maintained under controlled environmental conditions in the Laboratory Animal Facility at Fox Chase Cancer Center. The animals received 18% Protein Teklad Rodent Diet produced by Envigo, *ad libitum*. Diet consumption was controlled visually on a daily basis and sterilized drinking water was continuously available *ad libitum* via drinking bottles. Body weights were taken and tumor measurements were assessed with a caliper twice per week.
Growth of PNX0255 Burkitt Lymphoma PDX Xenografts (F2) into R2G2 and SCID mice

Data shown as mean values; N=2 per group
Tumor growth study was performed by Dr. Vladimir Khazak from NexusPharma, Inc., Philadelphia, PA.