

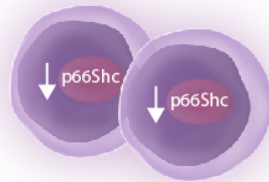
Comparison of p66Shc defect and p66Shc deficiency in two mouse models of chronic lymphocytic leukemia

Mouse models of chronic lymphocytic leukemia (CLL)

$E\mu$ -TCL1



Leukemic cells



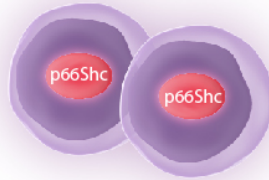
p66Shc defect

- Downregulation of p66Shc in tumoral B cells compared to normal B cells
- p66Shc expression declines during disease progression



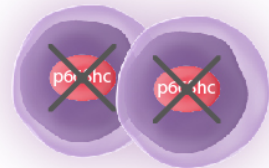
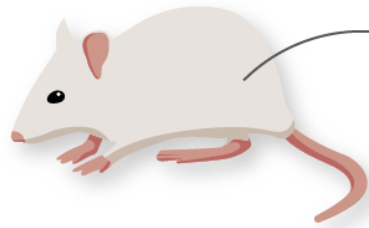
Bruton tyrosine kinase inhibitor Ibrutinib

In vitro
In vivo



- Restoration of p66Shc expression

$E\mu$ -TCL1/p66Shc^{-/-}



p66Shc deficiency

- Significantly higher disease incidence compared to $E\mu$ -TCL1 mice
- Earlier disease onset (~2 months earlier) and shorter lifespan
- Reduced sensitivity to fludarabine treatment
- Increased nodal and extranodal leukemic cell accumulation

p66Shc deletion in $E\mu$ -TCL1 mice results in accelerated leukemogenesis and enhanced disease aggressiveness, with massive nodal and extranodal infiltrations