

# p53Lck-TLX1 Mouse

**Catalogue number:** 154093

**Sub-type:** Mouse

**Images:**

## Contributor

**Inventor:** Adolfo Ferrando

**Institute:** The Trustees of Columbia University in the City of New York

**Images:**

## Tool details

**\*FOR RESEARCH USE ONLY**

**Name:** p53Lck-TLX1 Mouse

**Alternate name:** T Cell Leukemia Homeobox 1, Homeo Box-11, Proto-Oncogene TCL-3, HOX11, TCL3

CancerTools.org

**Class:**

**Conjugate:**

**Description:** TLX1 is an orphan homeobox gene. It was originally discovered in association with 4-7% of cases of T cell acute lymphoblastic leukaemias harbouring a t(10;14)(q24;q11) cytogenetic abnormality. Research showed the presence of the TLX1 gene on chromosome 10q24 juxtaposed with the T cell receptor (TCR) delta regulatory elements on chromosome 10, resulting in aberrant over-expression of the full and intact TLX1 gene. Juxtaposition with the TCR alpha locus was also seen. Elevated TLX1 expression in leukemic blasts is also detected in the absence of a translocation in ~50% (37/76) of paediatric T-ALL cases, as well as rare cases of B-AL. Clinically, TLX1+ T-ALLs are associated with a genetic signature associated with maturation arrest at an early cortical thymocyte stage of T cell development. This model organism recapitulates many molecular features of human leukaemias induced by the TLX family of TF oncogenes.

**Purpose:**

**Parental cell:**

**Organism:**

**Tissue:**

**Model:** Transgenic

**Gender:**

**Isotype:**

**Reactivity:**

**Selectivity:**

**Host:**

**Immunogen:**

**Immunogen UNIPROT ID:**

**Sequence:**

**Growth properties:**

**Production details:** The human TLX1 cDNA was amplified by PCR using BamHI restriction site containing primers and cDNA of the human T-cell leukemia cell line ALL-SIL as template and was cloned in the pUC1017 vector, downstream of the mouse T-cell specific p56Lck proximal promoter

**Formulation:**

**Recommended controls:**

**Bacterial resistance:**

**Selectable markers:**

**Additional notes:** Transgenic mouse expressing human transcription factor Tlx1 in T cell progenitors under control of the LCK promoter

## Target details

**Target:** TLX1

**Target alternate names:**

**Target background:**

**Molecular weight:**

**lc50:**

## Applications

**Application:**

**Application notes:**

## Handling

**Format:**

**Concentration:**

**Passage number:**

**Growth medium:**

**Temperature:**

**Atmosphere:**

**Volume:**

**Storage medium:**

**Storage buffer:**

**Storage conditions:**

**Shipping conditions:** Embryo/Spermatoza- Dry Ice

## Related tools

**Related tools:**

## References

**References:** Foxler et al. 2018. EMBO Mol Med. 10(8):. PMID: 29930174. ; A HIF-LIMD1 negative feedback mechanism mitigates the pro-tumorigenic effects of hypoxia. ; Chakraborty et al. 2018. Biochem J. 475(10):1793-1806. PMID: 29654110. ; Deregulation of LIMD1-VHL-HIF-1a-VEGF pathway is associated with different stages of cervical cancer. ; Foxler et al. 2012. Nat Cell Biol. 14(2):201-8. PMID: 22286099. ; The LIMD1 protein bridges an association between the prolyl hydroxylases and VHL to repress HIF-1 acti...