

# RMA.Trh4 Db KO cells

**Catalogue number:** 157677

**Sub-type:** Continuous

**Images:**

## Contributor

**Inventor:** Thorbald Van Hall

**Institute:** Leiden University and Leiden University Medical Center; Stichting Oncode Institute

**Images:**

## Tool details

**\*FOR RESEARCH USE ONLY**

**Name:** RMA.Trh4 Db KO cells

**Alternate name:**

**Class:**

**Conjugate:**

**Description:** This cell line overexpresses the ER-resident ceramide synthase Trh4 (transduced by CRISPR) and lacks the H2-Db gene. It serves as a control in helping to understanding T-cell recognition of the Trh4-derived peptide presented by the MHC class I molecule H2-Db. This peptide-epitope is a prototypic example of a neo-antigen selectively presented by cells with processing defects in the classical MHC class I (MHC-I) pathway. RMA cells have an intact processing pathway and a functional TAP peptide transporter, but overexpress the Trh4 protein and therefore could present the Trh4 peptide. However, no T cell recognition can be observed due to the absence of the MHC class I H2-Db. This population acts as a clear control. CRISPR edited RMA cells.

**Purpose:**

**Parental cell:** RMA

**Organism:** Mouse

**Tissue:** Lymphatic Tissue

**Model:** Knock-Out

**Gender:**

**Isotype:**

**Reactivity:**

**Selectivity:**

**Host:**

**Immunogen:**

**Immunogen UNIPROT ID:**

**Sequence:**

**Growth properties:**

**Production details:** Retroviral transduction of the mouse Trh4 gene in an IRES-GFP construct and CRISPR/Cas9 technology

**Formulation:**

**Recommended controls:** RMA.Trh4 Kb KO cells

**Bacterial resistance:**

**Selectable markers:**

**Additional notes:** CRISPR edited RMA cells. Cancer Research Technology Limited (trading research tools as Ximbio) has been granted a non-exclusive license to the CRISPR-Cas9 technology by ERS Genomics Ltd under the patent rights listed here. This license from ERS Genomics Ltd allows Ximbio to develop and commercialise CRISPR-Cas9 modified cell lines for research use only. Ximbio can provide...

## Target details

**Target:** Trh4 Db KO

**Target alternate names:**

**Target background:**

**Molecular weight:**

**Ic50:**

## Applications

**Application:**

**Application notes:** Cancer Research Technology Limited (trading research tools as CancerTools.org) has been granted a non-exclusive license to the CRISPR-Cas9 technology by ERS Genomics Ltd under the patent rights listed here: [https://www.cancertools.org/tool-faqs#hs\\_cos\\_wrapper\\_widget\\_1649861453796](https://www.cancertools.org/tool-faqs#hs_cos_wrapper_widget_1649861453796) This license from ERS Genomics Ltd allows CancerTools.org to develop and commercialise CRISPR-Cas9 modified cell lines for research use only. CancerTools.org can provide these modified CRISPR-Cas9 cell lines to comp...

## Handling

**Format:** Frozen

**Concentration:**

**Passage number:**

**Growth medium:** Suspension cells in DMEM+8% FCS

**Temperature:**

**Atmosphere:**

**Volume:**

**Storage medium:**

**Storage buffer:**

**Storage conditions:** Liquid Nitrogen

**Shipping conditions:** Dry ice

## Related tools

**Related tools:**

## References

**References:** Oliveira et al. 2011. Eur J Immunol. 41(11):3114-24. PMID: 21898382.

CancerTools.org