

# Oct1/2 Knock Out Mouse

**Catalogue number:** 153874

**Tool type:**

## Contributor

**Inventor:** Alfred Schinkel

**Institute:** Netherlands Cancer Institute

**Images:**

## Tool details

**\*FOR RESEARCH USE ONLY**

**Name:** Oct1/2 Knock Out Mouse

**Alternate name:** SLC22A1/2, Solute Carrier Family 22 Member 1/2, Organic Cation Transporter 1/2

**Class:**

**Conjugate:**

**Description:** Oct1/2 are polyspecific organic cation transporters in the liver, kidney, intestine, and other organs. They are critical for elimination of many endogenous small organic cations as well as a wide array of drugs and environmental toxins. Useful for studies of drug transport in the liver, intestine and kidneys. OCT1 and OCT2 determine renal secretion of small organic cations.

**Purpose:**

**Parental cell:**

**Organism:**

**Tissue:**

**Model:** Knock-Out

**Gender:**

**Isotype:**

**Reactivity:**

**Selectivity:**

**Host:**

**Immunogen:**

**Immunogen UNIPROT ID:**

**Sequence:**

**Growth properties:**

**Production details:** The model was created through sequential targeting of the Slc22a1 and Slc22a2 genes in 129/Ola-derived E14 ES cells and injecting the targeted cells into C57BL/6 blastocysts.

Resultant chimeras were backcrossed to FVB/N for seven generations

**Formulation:**

**Recommended controls:**

**Bacterial resistance:**

**Selectable markers:**

**Additional notes:** Useful for studies of drug transport in the liver, intestine and kidneys. OCT1 and OCT2 determine renal secretion of small organic cations. The Oct1/2 mouse was developed in the laboratory of Alfred Schinkel of the Netherlands Cancer Institute

## Patient details

**Cancer subtype:**

**Cancer stage/grade:**

**Biopsy site:**

**Patient ethnicity:**

**Treatment history:**

## Engraftment details

**Mice passaged?:**

**Engraftment site:**

**Sample type:**

**Host strain:**

**Histology:**

**Genetic data:**

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## Target details

**Target:** Oct1 and Oct2

**Target alternate names:**

**Target background:**

**Molecular weight:**

**Ic50:**

## Applications

**Application:** Useful for studies of drug transport in the liver, intestine and kidneys. OCT1 and OCT2 determine renal secretion of small organic cations.

**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:** Baldwin et al. 1998. In Vitro Cell Dev Biol Anim. 34(8):649-54. PMID: 9769151. ; BG-1 ovarian cell line: an alternative model for examining estrogen-dependent growth in vitro. ; Pavlik et al. 1991. Gynecol Oncol. 42(3):245-9. PMID: 1955187. ; The growth response of BG-1 ovarian carcinoma cells to estradiol, 4OH-tamoxifen, and tamoxifen: evidence for intrinsic antiestrogen activation. ; Geisinger et al. 1989. Cancer. 63(2):280-8. PMID: 2910432. ; Characterization of a human ovarian carcinoma cell line with estrogen and progesterone receptors.