Male Mice Lacking Sry on the Y Chromosome with a Function Autosomal Sry Transgene

Tech ID: 21499 / UC Case 2010-496-0

INNOVATION

UCLA researchers have developed mice in which the Sry gene is deleted from the Y chromosome and inserted onto an autosome as a transgene, effectively transferring testis determination from the Y chromosome to an autosome. When male mice carrying the Sry transgene are mated to wild-type females, they produce four "core" genotypes that can be used as a model to investigate relationships between sex chromosome complement (XX or XY) and gonadal type that influences phenotypic characteristics.

APPLICATIONS

▶ This mouse strain allows investigation of the separate actions, and interactions, of different types of sex-specific forces (hormonal and chromosomal) that cause sex differences.

ADVANTAGES

▶ New candidate pathways

▶ Better understanding on the mechanism of action for antidepressants

▶ Simple and convenient assay that may be used in high throughput format

RELATED MATERIALS

▶ Chen X, et al. Sex difference in neural tube defects in p53-null mice is caused by differences in the complement of X not Y genes. Dev Neurobiol. 2008 Feb 1;68(2):265-73.

▶ Additional Information on Mouse Strain #010905 from The Jackson Laboratory

CONTACT

UCLA Technology Development Group
ncd@tdg.ucla.edu
tel: 310.794.0558.

INVENTORS

▶ Arnold, Arthur P.

OTHER INFORMATION

KEYWORDS

Research tools; mouse model

CATEGORIZED AS

▶ **Research Tools**

  ▶ Animal Models

RELATED CASES

2010-496-0