

Mutant DISC1 Inducible Transgenic mouse

Catalogue number: 156431

Sub-type: Mouse

Images:

Contributor

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Institute: Johns Hopkins University

Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: Mutant DISC1 Inducible Transgenic mouse

Alternate name:

Class:

Conjugate:

Description: A strong candidate gene for schizophrenia and major mental disorders, disrupted-in-schizophrenia 1 (DISC1) has been implicated in neurodevelopment, including maturation of the cerebral cortex. Translocation mutation may result in loss of DISC1 function via haploinsufficiency or dominant-negative effects of a predicted mutant DISC1 truncated protein product. Transgenic mice with inducible expression of mutant human DISC1 (hDISC1) limited to forebrain regions, including cerebral cortex, hippocampus and striatum were generated using the TET-off gene expression system under the regulation of the CAMKII promoter. Expression of mutant hDISC1 was not shown to be associated with gross neurodevelopmental abnormalities, but did produce mild abnormalities. Compared to their sex-matched littermate controls, mutant hDISC1 transgenic male mice exhibited spontaneous hyperactivity in the open field and alterations in social interaction, and transgenic female mice showed deficient spatial memory. Neuronal and behavioral effects of mutant hDISC1 are consistent with a dominant-negative mechanism, and are similar to some features of schizophrenia.

Purpose:

Parental cell:

Organism:

Tissue:

Model: Transgenic

Gender:

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:
Immunogen UNIPROT ID:
Sequence:
Growth properties:
Production details:
Formulation:
Recommended controls:
Bacterial resistance:
Selectable markers:
Additional notes:

Target details

Target: DISC1
Target alternate names:
Target background:
Molecular weight:
Ic50:

Applications

Application:
Application notes:

Handling

Format:
Concentration:
Passage number:
Growth medium:
Temperature:
Atmosphere:
Volume:
Storage medium:
Storage buffer:
Storage conditions:
Shipping conditions:

Related tools

Related tools:

References

References: Noel et al. 2015. J Am Soc Nephrol. 26(12):2989-3000. PMID: 26293820.

CancerTools.org