



B 6 . 1 2 9 *H_{pgd}^{tm1Bhk}* / M m j a x

MMRRC Stock No: 32028-JAX

Congenic, Targeted Mutation, Transgenic



CRYORECOVERY

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Overview

The targeted mutation deletes the region of the mouse *Hpgd* locus corresponding to amino acids 167-266 of the human gene. These mice may be useful in studying the role of Hpgd and prostaglandin E2 (PGE2) in closure of the ductus arteriosus and clinical management of ductus-dependant congenital heart defects.

Donating Investigator

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GENETIC OVERVIEW

Genetic Background Generation

Hpgd^{tm1Bhk}

Allele Type	Gene Symbol	Gene Name
Targeted (Null/Knockout)	<i>Hpgd</i>	hydroxyprostaglandin dehydrogenase 15 (NAD)

V I E W G E N E T I C S

RESEARCH APPLICATIONS

Cardiovascular Research
Developmental Biology Research
Research Tools

V I E W A L L R E S E A R C H A P P L I C A T I O N S

Details

Detailed Description

The targeted mutation deletes the region of the mouse *Hpgd* locus corresponding to amino acids 167-266 of the human gene. Heterozygous mice are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. Homozygous (*Pgdh*^{-/-}) mice exhibit failure of the ductus arteriosus to close; resulting in perinatal lethality within 12-48 hours after birth due to congestive heart failure. Homozygotes are viable only if newborn pups are given indomethacin (6mg/kg) within 12 hours of birth (and these surviving homozygous males are fertile, but surviving homozygous females are infertile). These mice may be useful in studying the role of *Hpgd* and prostaglandin E2 (PGE2) in closure of the ductus arteriosus and clinical management of ductus-dependant congenital heart defects.

Development

Selected References

Genetics

Hpgd^{tm1Bhk}

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

🔍 Technical Support

C H A T O  F L I N E

C O N T A C T T E C H N I C A L S U P P O R T

Genotyping Protocols

Standard PCR: [Hpgd^{tm1Bhk}](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintained as a live colony, heterozygous mice are bred with wildtype siblings or C57BL/6J inbred mice. Homozygous mice exhibit perinatal lethality within 12-48 hours after birth due to congestive heart failure. Homozygotes are viable only if newborn pups are given indomethacin (6mg/kg) within 12 hours of birth (and these surviving homozygous males are fertile, but surviving homozygous females are infertile).

[Additional Breeding and Husbandry Support](#)

Citation

When using the B6.129P2-[Hpgd^{tm1Bhk}](#)/Mmjax mouse strain in a publication, please [cite the originating article\(s\)](#) and include MMRRC stock #32028 in your Materials and Methods section.

Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, [G200](#)

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