

B6.129S1(Cg)-*Htt*^{tm2Mem}/20ChdiJ

Stock No: **027411** | B6J.HdhQ20 ; HttQ20 ; CHDI-81003005

 Congenic, Targeted Mutation

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

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exon 1) encoding the human version of the polyglutamine/polyproline-rich segment with 18 CAG repeats [(CAG)₁₈CAACAG]. These B6J.HdhQ20 knock-in mice may be useful for studying Huntington's disease, specifically to investigate the influence of CAG size on the desired outcome measures.

Donating Investigator

Dr. Marcy E MacDonald, Massachusetts General Hospital

Dr. David Howland, CHDI Foundation

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GENETIC OVERVIEW

Genetic Background

Generation

Htt^{tm2Mem}

Alele Type

Targeted (Humanized sequence)

Gene Symbol

Htt

Gene Name

huntingtin

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research

Mouse/Human Gene Homologs

Research Tools

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

V I E W P R I C E L I S T

Details

Detailed Description

Stock No. 027411 was formerly associated with CHDI Foundation colony Stock No. 370504 [CHDI-81003005].

Huntington's disease (HD) is an autosomally dominant, fatal neurodegenerative disorder characterized by uncontrolled movements, psychiatric disturbances and cognitive impairment. HD is caused by an unstable trinucleotide (polyglutamine) repeat expansion in the huntingtin gene (*HTT*; HD or Hdh).

The Hdh^{Q20} knock-in allele (Hdh^{Q20}) has a chimeric mouse:human huntingtin exon 1 (Hdh:HD exon 1) encoding the human version of the polyglutamine/polyproline-rich segment with 18 CAG repeats [(CAG)₁₈CAACAG]. The polyglutamine stretch in the mutant huntingtin product, as denoted in the name of the Hdh^{Q20} knock-in allele, is two residues longer than the number of CAG units in the repeat due to invariant, penultimate exon 1 CAA,CAG codons immediately downstream. The CAG repeat number in the Hdh^{Q20} knock-in allele is reported to be stable (see note on CAG stability below). Mutant mice accurately express the mouse/human hybrid huntingtin protein. Homozygous and heterozygous mice are viable and fertile with normal lifespans.

This Huntington's disease mouse model is available by way of a collaborative effort between CHDI Foundation, Dr. Marcy E. MacDonald (Massachusetts General Hospital) and The Jackson Laboratory.

While pure CAG sequences in exon 1 may be subject to germline or somatic instability, and may expand or contract, the CAG repeat number in the Hdh^{Q20} knock-in allele is reported to be stable. When using lines with unstable CAG repeat length, it is strongly recommended the CAG repeat number be quantified in all the experimental animals; all animals in all experimental groups should carry comparable CAG repeat sizes. CAG repeat sizing of HD mice should be done using high-resolution methods as assays based on agarose gel electrophoresis typically do not provide sufficient resolution to accurately measure CAG repeat numbers. If labs do not have access to the appropriate equipment for determining CAG repeat length, CAG repeats can be evaluated on a fee-for-service basis by [Laragen, Inc.](#)

Development

Control Suggestions

Selected References

– Genetics

+ [Htt^{tm2Mem}](#)

– Disease/Phenotype

+ [Disease Terms](#)

+ [Research Areas By Phenotype](#)

+ [Mammalian Phenotype Terms by Genotype](#)

+ [References](#)

– Technical Support

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:[Laragen](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

Homozygous and heterozygous mice are viable and fertile with normal lifespans. When maintaining our live colony, C57BL/6J inbred females (Stock No. [000664](#)) or wildtype females from the colony are bred to heterozygous males. Breeding heterozygous mice to wildtype animals from the colony or to C57BL/6J inbred mice may also be possible regardless of specific sex.

[Additional Breeding and Husbandry Support](#)

Mating System

C57BL/6J (000664) x Heterozygote

Citation

When using the B6J.HdhQ20 ; HttQ20 ; CHDI-81003005 mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #027411 in your Materials and Methods section.

Animal Health Reports

[Facility Barrier Level Descriptions](#)

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

🔍 Pricing & Availability



Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

Domestic | International

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous or wildtype for Htt<tm2Mem>	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	B6J.129S1(Cg)-Htt<tm2Mem>/20Chd1J Frozen Embryo	\$2595.00
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