

DH82 | 305003

Description

DH-82 is a mouse strain that is highly resistant to malaria. It is a derivative of the C57BL/6J strain and is characterized by its ability to resist infection by the parasite *Plasmodium berghei*. This resistance is due to a mutation in the *Fc gamma R2* gene, which encodes the Fc gamma R2b protein. The mutation results in a protein that is unable to bind to the parasite's merozoites, preventing them from entering the host cells. Additionally, DH-82 mice have a higher level of the C3b complement component, which is also involved in the immune response against the parasite. The strain is maintained at the Cytion facility and is available for research purposes. It is a good model for studying the mechanisms of malaria resistance and the role of the immune system in host-parasite interactions. The strain is also used in the study of the role of the IL-1 gene in the development of malaria resistance. The DH-82 strain is a valuable resource for researchers in the field of malaria and host-parasite interactions.

Organism

Mouse

Disease

Malaria (resistant)

Synonyms

DH-82, DH 82

Breed/Subspecies

C57BL/6J

Age

10 weeks

Gender

Both

Morphology

Normal

Cell type

None

Growth properties

None

Citation

DH82 (C57BL/6J background) (305003)

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Biosafety level 1

NCBI_TaxID 9615

CellosaurusAccession CVCL_2018

Culture Medium EMEM (MEM Eagle) 2 mM L-glutamine-2.2 mM NaHCO₃ EBSS (820100a)

Supplements 10% FBS

Dissociation Reagent Trypsin

Subculturing 1:2 to 1:10 in EMEM with 10% FBS

Fluid renewal 2-3 times per week

Freeze medium EMEM with 10% FBS + 10% DMSO

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Thawing and Culturing Cells

1. Thaw the vial in a water bath at 37°C. Do not shake the vial. Remove the vial from the water bath and centrifuge at 300 x g for 3 minutes. Discard the supernatant and resuspend the cells in 10 ml of complete medium. Seed the cells into a 75 cm² flask. Incubate the cells for 15-18 hours. The cells should reach 70% confluency.
2. Thaw the vial in a water bath at 37°C. Do not shake the vial. Remove the vial from the water bath and centrifuge at 300 x g for 3 minutes. Discard the supernatant and resuspend the cells in 10 ml of complete medium. Seed the cells into a 75 cm² flask. Incubate the cells for 15-18 hours. The cells should reach 70% confluency.
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Incubation Atmosphere

37°C, 5% CO₂

Flask Coating

None

Freezing Procedure

Resuspend cells in 1 ml of freezing medium and seed into a 1 ml cryovial. Freeze at -80°C.

Shipping Conditions

Store at -80°C.

Storage Conditions

Store at -150°C to -196°C.

/ / HLA

Sterility

Tested for sterility (PCR) and endotoxin. Sterile and endotoxin-free.