These Clu (also referred to as apoJ/clusterin) mice contain a targeted mutation of a glycoprotein associated with Alzheimer's disease and exhibit less neuroprotective properties after permanent focal cerebral ischemia.

Donating Investigator
Bruce Aronow, Cincinnati Children's Hospital Med Cntr
Mice that are homozygous for the targeted mutation are viable, fertile, normal in size, and do not display any behavioral abnormalities. No protein is detected in serum, liver, or brain and *in situ* hybridization shows no mRNA in heart. This mutant has been studied for different functions on different backgrounds. On the Swiss Black outbred background, aging homozygous mutant mice develop a progressive glomerulopathy characterized by deposition of tubulo-fibrillary immune complexes devoid of inflammation or necrosis. On the FVB/N background, homozygous null mice with chemically induced autoimmune myocarditis show severe and diffuse lesions with postinflammatory functional impairment. Induced skin carcinogenesis is more severe than wildtype. On the C57BL/6 background, homozygotes given a hypoxia-ischemia brain injury (modeling cerebral palsy) had 50% less brain injury compared to wild type. Conversely, mutants have less neuroprotective properties after permanent focal cerebral ischemia, a mouse model of human stroke. Mutant mice have altered heat-induced apoptosis in the testis. This mutant confers less fibrillar amyloid-beta damage and less neuritic dystrophy when bred with Alzheimer's disease model mice compared to control. This mutant mouse strain contains a targeted mutation of a widely expressed circulating glycoprotein associated with Alzheimer's disease, cerebral palsy, stroke, apoptosis, autoimmune myocarditis, kidney disease, and skin carcinogenesis.
Technical Support

Genotyping Protocols
Standard PCR: Clu alternate 2
Genotyping resources and troubleshooting

Breeding Considerations
Homozygotes are viable and fertile. The donating investigator indicates that these mice can be maintained on a high fat diet to increase viability and fecundity, but it is not required.

Additional Breeding and Husbandry Support

Citation
When using the apoJ- mouse strain in a publication, please cite the originating article(s) and include JAX stock #005642 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

Cryo Recovery
Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.
Payment Terms and Conditions

Terms are granted by individual review and stated on the customer invoice(s) and account statement. These transactions are payable in U.S. currency within the granted terms. Payment for services, products, shipping containers, and shipping costs that are rendered are expected within the payment terms indicated on the invoice or stated by contract. Invoices and account balances in arrears of stated terms may result in The Jackson Laboratory pursuing collection activities including but not limited to outside agencies and court filings.

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