Also Known As: B6N, Black 6N

This is an NIH subline of C57BL/6. It was separated from C57BL/6J in 1951. Five SNP differences have been identified that distinguish C57BL/6J from C57BL/6ByJ and C57BL/6NJ. This strain does not have the deletion in the \textit{Nnt} gene that has been found in the C57BL/6J strain (Stock No. 000664).

**GENETIC OVERVIEW**

<table>
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<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tr>
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<td>Contact Technical Support</td>
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Important Note
This strain is homozygous for $Crb1^{rd8}$, the retinal degeneration 8 mutation. Photoreceptor degeneration is observed in spots, caused by retinal folds and pseudorosettes, found in the fundus of the eye.

Detailed Description
This is an NIH subline of C57BL/6. It was separated from C57BL/6J in 1951. 5 SNP differences have been identified that distinguish C57BL/6J from C57BL/6ByJ and C57BL/6NJ. Both C57BL/6ByJ and C57BL/6NJ type as follows: 08-015199792-M (rs3709624) is C; 11-004367508-M (rs3659787) is A; 13-041017317-M (rs3722313) is C; 15-057561875-M (rs3702158) is G; 19-049914266-M (rs3724876) is T. C57BL/6J types as follows: 08-015199792-M is T; 11-004367508-M is G; 13-041017317-M is T; 15-057561875-M is A; 19-049914266-M is G (Petkov and Wiles 2005.) This strain does not have the deletion in the Nnt gene that has been found in the C57BL/6J strain (Stock No. 000664). C57BL/6NJ mice are homozygous for $Cyfip2^{jnu}$, a spontaneous mutation in the cytoplasmic FMR1 interacting protein 2 that results in an amino acid substitution of phenylalanine for serine at position 968 (S968F). The mutation is found in all C57BL/6N substrains but is not present in the C57BL/6J strain or substrains. The mutation results in 45% lower acute response to cocaine as measured by locomotor hyperactivity.

Development

Selected References
Genetics

Crb1rd8

Nlpr12C57BU6N

Cyfip2M1N

Cox7a2s

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

Phenotype Information

References

Technical Support

Genotyping Protocols
Separated PCR: GAL Panel
End Point Analysis: H2rs253049200-Alt 1-EP
End Point Analysis: H2rs253049200-Alt 1-EP
End Point Analysis: Crb1 End Point
End Point Analysis: Kif1a
End Point Analysis: Smcx/Smcy-PROBE
Sanger sequencing: H2rs253049200
Sanger sequencing: Gabra2-SEQ
Genotyping resources and troubleshooting

Inbred mouse strains are maintained through sibling (sister x brother) matings; no genotyping required.

Dietary Information
New Diet as of March 2015: Lab Diet® 5K0Q (6% fat)
Breeding Considerations

This strain is a good breeder.

Additional Breeding and Husbandry Support

Mating System
Inbred x Inbred

Appearance
black

Related Genotype: a/a

Citation
When using the C57BL/6NJ mouse strain in a publication, please include JAX stock #005304 in your Materials and Methods section.

Animal Health Reports

Facility Barrier Level Descriptions

- RB07 (Maximum)
- MP13 (Maximum)
- AX5 (Standard)
- MP16 (Standard)

Pricing & Availability

Sized to accommodate orders of up to 100 or more. Ask Customer Service for details.

Domestic Internation

Pricing effective for USA, Canada and Mexico shipping destinations

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**VOLUME PRICING DETAILS**

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*Volume Pricing Program*
Quantities: Volume pricing is automatically applied when a minimum quantity per strain for a shipment is reached
Sexes: Sexes of the same strain may be combined to reach minimum quantity levels to receive the volume pricing
Shipment: All shipping destinations qualify

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Terms Of Use

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**LICENSING INFORMATION**

Phone: 207-288-6470  
Email: TechTran@jax.org

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## Related Strains

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<th>All Related Strains</th>
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### By Allele

### By Gene

### By Collection