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ENVIGO

Research Models  
and Services

Inbred Rats

# SR

## Origin

John P. Rapp, Medical College, Ohio, from a Sprague-Dawley outbred colony developed by LK Dahl, Brookhaven National Laboratories, Upton, New York, selected for resistance to salt-induced hypertension (Dahl *et al*, 1962).

## SR/JrHsd

From Medical College to Harlan Laboratories in 1986. Harlan became Envigo in 2015.

## Characteristics

Hypertension and vascular and renal lesions do not develop on a high salt (8% NaCl) diet. Mild hydronephrosis at four months of age that is probably genetically determined (Rapp and Dene, 1985). Has mutant form of cytochrome P450(11-beta) (Matsukawa *et al*, 1993).

Characteristics of the SR strain have been described by Greenhouse *et al* (1990).

## Genetics

Coat color genes - c : albino.

## References

1. Dahl LK, Heine M and Tassinari L (1962) Effects of chronic excess salt ingestion. Evidence that genetic factors play an important role in susceptibility to experimental hypertension. *J. Exp. Med.* 115: 1173-1190.
2. Dahl LK, Heine M and Tassinari L (1962) Role of genetic factors in susceptibility to experimental hypertension due to chronic excess salt ingestion. *Nature* 194: 480-482.
3. Greenhouse DD, Festing MFW, Hasan S and Cohen AL (1990) Catalogue of inbred strains of rats. In: Genetic monitoring of inbred strains of rats (Hedrich HJ, ed). Stuttgart, New York: Gustav Fischer Verlag, pp. 410-480.
4. Matsukawa N, Nonaka Y, Higaki J, Nagano M, Mikami H, Ogihara T and Okamoto M (1993) Dahls salt-resistant normotensive rats has mutations in cytochrome P450(11-beta), but the salt-sensitive hypertensive rat does not. *J. Biol. Chem.* 268, 9117-9121.
5. Rapp JP and Dene H (1985) Development and characteristics of inbred strains Dahl salt-sensitive and salt-resistant rats. *Hypertension* 7, 340-349.

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