

DERMATOMYOSITIS

Results of Various Breeding Combinations for a Dog with aaBB Genotype

Red are risk alleles, **blue** are "wild type," normal alleles.

(Punnett squares provided courtesy of the Clark Canine Genetics Research Laboratory, Clemson University.
<http://www.clemsoncaninegenetics.com/>)

aaBB	
aB aB aB aB	
ab	aaBb
ab	aaBb
ab	aaBb
ab	aaBb
16 aaBb	

All low risk with homozygous or heterozygous *DLA-DRB1*002:01*

		<u>aaBB</u>			
		<u>aB</u>	<u>aB</u>	<u>aB</u>	<u>aB</u>
<u>Aabb</u>	<u>Ab</u>	<u>AaBb</u>	<u>AaBb</u>	<u>AaBb</u>	<u>AaBb</u>
	<u>Ab</u>	<u>AaBb</u>	<u>AaBb</u>	<u>AaBb</u>	<u>AaBb</u>
	<u>ab</u>	<u>aaBb</u>	<u>aaBb</u>	<u>aaBb</u>	<u>aaBb</u>
	<u>ab</u>	<u>aaBb</u>	<u>aaBb</u>	<u>aaBb</u>	<u>aaBb</u>

8 AaBb: 8 aaBb

All low risk with homozygous or heterozygous *DLA-DRB1*002:01*

aaBB

aB

aB

aB

aB

AAbb

Ab

AaBb

AaBb

AaBb

AaBb

Ab

AaBb

AaBb

AaBb

AaBb

Ab

AaBb

AaBb

AaBb

AaBb

Ab

AaBb

AaBb

AaBb

AaBb

16 AaBb

All low risk with homozygous or heterozygous *DLA-DRB1*002:01*

		<u>aaBB</u>			
		<u>aB</u>	<u>aB</u>	<u>aB</u>	<u>aB</u>
<u>aaBb</u>	<u>aB</u>	<u>aaBB</u>	<u>aaBB</u>	<u>aaBB</u>	<u>aaBB</u>
	<u>ab</u>	<u>aaBb</u>	<u>aaBb</u>	<u>aaBb</u>	<u>aaBb</u>
	<u>aB</u>	<u>aaBB</u>	<u>aaBB</u>	<u>aaBB</u>	<u>aaBB</u>
	<u>ab</u>	<u>aaBb</u>	<u>aaBb</u>	<u>aaBb</u>	<u>aaBb</u>

8 aaBB: 8 aaBb

8-16 low risk: 8 aaBb with homozygous or heterozygous *DLA-DRB1*002:01*

0-8 aaBB with heterozygous *DLA-DRB1*002:01*

0-8 moderate risk: aaBB with homozygous *DLA-DRB1*002:01*

		<u>aaBB</u>			
		<u>aB</u>	<u>aB</u>	<u>aB</u>	<u>aB</u>
<u>aaBB</u>	<u>aB</u>	<u>aaBB</u>	<u>aaBB</u>	<u>aaBB</u>	<u>aaBB</u>
	<u>aB</u>	<u>aaBB</u>	<u>aaBB</u>	<u>aaBB</u>	<u>aaBB</u>
	<u>aB</u>	<u>aaBB</u>	<u>aaBB</u>	<u>aaBB</u>	<u>aaBB</u>
	<u>aB</u>	<u>aaBB</u>	<u>aaBB</u>	<u>aaBB</u>	<u>aaBB</u>
		16 <u>aaBB</u>			

0-16 low risk aaBB with heterozygous *DLA-DRB1*002:01*

0-16 moderate risk aaBB with homozygous *DLA-DRB1*002:01*

		<u>aaBB</u>			
		<u>aB</u>	<u>aB</u>	<u>aB</u>	<u>aB</u>
<u>AaBb</u>	<u>AB</u>	<u>AaBB</u>	<u>AaBB</u>	<u>AaBB</u>	<u>AaBB</u>
	<u>Ab</u>	<u>AaBb</u>	<u>AaBb</u>	<u>AaBb</u>	<u>AaBb</u>
	<u>aB</u>	<u>aaBB</u>	<u>aaBB</u>	<u>aaBB</u>	<u>aaBB</u>
	<u>ab</u>	<u>aaBb</u>	<u>aaBb</u>	<u>aaBb</u>	<u>aaBb</u>

4 AaBB: 4 AaBb: 4 aaBB: 4 aaBb

8-12 low risk: 4 AaBb, 4 aaBb with homozygous or heterozygous *DLA-DRB1*002:01*

0-4 aaBB with heterozygous *DLA-DRB1*002:01*

0-8 moderate risk: 0-4 aaBB with homozygous *DLA-DRB1*002:01*

0-4 AaBB with heterozygous *DLA-DRB1*002:01*

0-4 high risk: AaBB with homozygous *DLA-DRB1*002:01*

aaBB

aBaBaBaBABAaBBAaBBAaBBAaBBABAaBBAaBBAaBBAaBBAaBBaBaaBBaaBBaaBBaaBBaBaaBBaaBBaaBBaaBB8 AaBB: 8 aaBB0-8 low risk: aaBB with heterozygous *DLA-DRB1*002:01*0-16 moderate risk: 0-8 aaBB with homozygous *DLA-DRB1*002:01*0-8 AaBB with heterozygous *DLA-DRB1*002:01*0-8 high risk: 0-8 AaBB with homozygous *DLA-DRB1*002:01*

aaBB

aB

aB

aB

aB

AABb

AB

AaBB

AaBB

AaBB

AaBB

Ab

AaBb

AaBb

AaBb

AaBb

AB

AaBB

AaBB

AaBB

AaBB

Ab

AaBb

AaBb

AaBb

AaBb

8 AaBB: 8 AaBb

8 low risk: AaBb with homozygous or heterozygous *DLA-DRB1*002:01*

0-8 moderate risk: AaBB with heterozygous *DLA-DRB1*002:01*

0-8 high risk: AaBB with homozygous *DLA-DRB1*002:01*

		<u>aaBB</u>			
		<u>aB</u>	<u>aB</u>	<u>aB</u>	<u>aB</u>
AABB	AB	<u>AaBB</u>	<u>AaBB</u>	<u>AaBB</u>	<u>AaBB</u>
	AB	<u>AaBB</u>	<u>AaBB</u>	<u>AaBB</u>	<u>AaBB</u>
	AB	<u>AaBB</u>	<u>AaBB</u>	<u>AaBB</u>	<u>AaBB</u>
	AB	<u>AaBB</u>	<u>AaBB</u>	<u>AaBB</u>	<u>AaBB</u>
		<u>16 AaBB</u>			

0-16 moderate risk: AaBB with heterozygous *DLA-DRB1*002:01*

0-16 high risk: AaBB with homozygous *DLA-DRB1*002:01*