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abstract

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title: Mammary tumor virus expression in F1 hybrids of virus negative mouse strains

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A number of mouse strains kept in our institute were screened for release of the MuMTV envelope glycoprotein gp52 in the milk. The strains C3Hf, DBA/2, GR and SJL were positive in this assay, while AKR, BALB/c, C57BL, CBA, ND2 and RFM were negative in this respect. Several F1 hybrids were also tested for gp52 in the milk. A surprising result was the emergence of virus positive animals in the crosses between BALB/c and AKR, RFM or ND2. Back-crosses to either virus negative parent resulted in an approximately 50% reduction of virus positive animals. These results are compatible with the hypothesis that in the BALB/c a recessive gene inhibits virus release, whereas in the AKR, RFM or ND2 another recessive gene does the same. Probably the two separate genes control different processes which do not allow the synthesis of MuMTV polypeptides.