



## FREEMARTINISM

In most cases of cattle carrying twins blood is exchanged between fetuses so that in the case of male-female twins, the development of the heifer fetus is affected by hormones, and the heifer carries male cells and DNA. This leads to XX/XY chimerism (freemartin) and affected heifers are typically infertile.

### Test

The test for freemartinism is based on detecting male DNA in the blood of a heifer. The male genetic material remains within the heifer so that there is no age limit as to when the test can be run.

### Sample

EDTA blood

### Result

No male DNA is detected: The heifer is not a freemartin

Male DNA detected: The heifer is a freemartin