

Kell Discussion Questions:

1. Compared to the Rh antigens, how immunogenic are the Kell antigens?
2. Why is anti-K able to cause extremely severe HDFN?
3. What protein is necessary to be present in order for the Kell antigen to be expressed?
4. What two genes are involved in the Kell antigen formation?
5. What are the low frequency Kell antigens?
6. What are the high frequency Kell antigens?
7. What is the frequency of the big K antigen?
8. How does the K antigen react to enzyme treatment?
9. What immunoglobulin class is anti-K?
10. At what temperature does anti-K react best?
11. Does anti-K cause HDFN and transfusion reactions?
12. Does anti-K bind complement?
13. When the Kp(a) antigen is expressed, what will happen to the other Kell antigens?

14. Which low frequency Kell antigen is found in about 20% of blacks?
15. What does DTT do and how does it affect the Kell antigens?
16. If someone inherits the K₀ phenotype, what Kell antigens do they express?
17. If an individual has the K₀ phenotype, what antibody are they able to form?
18. If someone inherits the McLeod phenotype, what antigens are they lacking?
19. What happens to the Kell antigens when an individual lacks the Kx antigen?
20. What are the symptoms of McLeod Syndrome?
21. With what disease is the McLeod phenotype associated?
22. Since the Kx antigen is inherited on the X chromosome, what happens if a female inherits one functioning XK gene and one non-functioning XK gene?
23. What four instance can cause a weaker expression of the Kell antigens?
24. How might an individual express an acquired K antigen?