

CHAPTER 7

SUMMARY

The present study directly detected *S. suis* from hemoculture specimens by PCR technique based on two specific genes, PCR targeted to 16S rRNA gene and PCR targeted to *gdh* gene. Culture and biochemical characteristics were used to identified and compared with detection by PCR. Serotyping of *S. suis* was performed by duplex PCR and monoplex PCR compared with coagglutination test. The results are as follows:

1. Direct detection of *S. suis* in streptococcal-positive hemoculture by PCR targeted to *gdh* gene showed 100% sensitivity and specificity as compared with isolated colonies identified by PCR or culture results whereas PCR targeted to 16S rRNA gene found false positive 11 isolates (8 *S. bovis* isolates and 3 *E. faecalis* isolates).
2. Serotyping of 35 *S. suis* isolates by duplex PCR found all of them belonged to serotype 2 or 1/2, except 1 isolate belonged to serotype 1 or 14. This result was similar to detection by monoplex PCR targeted to *cps1* gene and *cps2* gene and serotyping by coagglutination test. It showed that duplex PCR was more rapid to identify serotype of *S. suis* than monoplex PCR.