**Supplementary Table 2. Reactivity of control sera on western blots of heterologous P9-17 and the recorded levels of reactivity against all 180 bands.** Sera from control individuals with no recorded history of gonorrhoea (n=5) collected at the same time as the patient sera, were reacted individually on western blots of heterologous *N. gonorrhoeae* strain P9-17. Levels of reactivity were scored by densitometry readings as positive +, ++, or strongly positive +++. Empty cells denote no reactivity. The % reactivity refers to the number of patient sera showing positive reactivity with the protein band as a % of the total numbers of each. Western blots were done in duplicate for each serum and the scores are the average of the two measurements of densitometry.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Band** | **Fraction** | **Sera** | | | | | **% Reactivity** |
| **C1** | **C2** | **C3** | **C4** | **C5** |
| **1** | **1** |  | + | + |  |  | 40 |
| **2** | **1** |  | + | + |  |  | 40 |
| **3** | **1** | + | + | + |  |  | 60 |
| **4** | **5** | + |  |  | + |  | 40 |
| **5** | **5** | + |  | + | + | + | 80 |
| **6** | **5** | + |  |  |  |  | 20 |
| **7** | **5** | +++ |  |  | + | + | 60 |
| **8** | **5** | + | + |  | + | +++ | 80 |
| **9** | **6** |  | + | + |  | +++ | 60 |
| **10** | **6** |  |  |  |  |  | 0 |
| **11** | **6** |  |  | + | + | + | 60 |
| **12** | **6** | + |  | + | + | + | 80 |
| **13** | **6** | + |  |  | + |  | 40 |
| **14** | **6** | + | + | + | + | + | 100 |
| **15** | **6** | + |  | + |  |  | 40 |
| **16** | **6** |  |  |  |  |  | 0 |
| **17** | **6** | +++ |  | + | + | + | 80 |
| **18** | **6** | + | + |  | + | +++ | 80 |
| **19** | **7** |  | + |  | + | + | 60 |
| **20** | **7** | +++ | + | +++ | + | +++ | 100 |
| **21** | **7** |  |  | +++ | +++ | + | 60 |
| **22** | **7** |  |  | + | + | + | 60 |
| **23** | **7** |  |  | + | + | + | 60 |
| **24** | **7** |  | + | + |  | +++ | 60 |
| **25** | **7** | +++ | + | + | + | +++ | 100 |
| **26** | **7** | +++ | + | + | + | + | 100 |
| **27** | **7** | +++ | +++ | + | + | +++ | 100 |
| **28** | **7** | + | + | +++ |  | + | 80 |
| **29** | **7** | + | + |  |  | +++ | 60 |
| **30** | **7** | +++ | + | + | + | +++ | 100 |
| **31** | **8** | +++ | + | +++ | +++ | +++ | 100 |
| **32** | **8** | +++ | + | +++ | + |  | 80 |
| **33** | **8** |  | + | + | + |  | 60 |
| **34** | **8** |  |  | + | +++ | + | 60 |
| **35** | **8** | + |  | + | +++ | + | 80 |
| **36** | **8** | +++ |  | +++ | +++ | +++ | 80 |
| **37** | **8** | +++ | + | +++ | +++ | +++ | 100 |
| **38** | **8** | +++ | +++ | +++ | +++ | +++ | 100 |
| **39** | **8** | +++ | + | + | + | + | 100 |
| **40** | **8** | + | + | +++ |  | + | 80 |
| **41** | **8** | + | + | + |  | +++ | 80 |
| **42** | **8** | + | +++ | +++ | + | +++ | 100 |
| **43** | **9** |  |  | + |  |  | 20 |
| **44** | **9** |  |  | + |  |  | 20 |
| **45** | **9** | + |  | +++ | +++ | + | 80 |
| **46** | **9** | +++ |  | +++ |  | + | 60 |
| **47** | **9** | + | + | +++ |  | + | 80 |
| **48** | **9** |  | + | + | + |  | 60 |
| **49** | **9** |  |  | + | + | + | 60 |
| **50** | **9** | + |  | + | +++ |  | 60 |
| **51** | **9** | + |  | +++ | +++ | + | 80 |
| **52** | **9** |  | + | +++ | + | + | 80 |
| **53** | **9** | + | +++ | + | +++ | + | 100 |
| **54** | **9** | + | + | +++ |  |  | 60 |
| **55** | **9** | +++ | +++ | +++ | + | + | 100 |
| **56** | **10** |  |  | + |  |  | 20 |
| **57** | **10** | + |  | + | + | +++ | 80 |
| **58** | **10** | + | + | + | +++ | + | 100 |
| **59** | **10** | + | + | + |  |  | 60 |
| **60** | **10** |  |  | + | + |  | 40 |
| **61** | **10** |  |  | + | + | + | 60 |
| **62** | **10** |  |  | + | + | + | 60 |
| **63** | **10** |  |  | + | + | + | 60 |
| **64** | **10** |  |  | + | + | + | 60 |
| **65** | **10** |  | +++ | +++ | +++ | +++ | 80 |
| **66** | **10** | +++ | + | + |  | + | 80 |
| **67** | **10** | + | + | +++ |  |  | 60 |
| **68** | **10** |  |  | +++ |  |  | 20 |
| **69** | **10** | +++ | + | +++ |  | + | 80 |
| **70** | **11** | + | + | +++ | + | +++ | 100 |
| **71** | **11** | + |  | + | +++ | + | 80 |
| **72** | **11** |  |  | + | + |  | 40 |
| **73** | **11** |  |  | + | + |  | 40 |
| **74** | **11** |  |  |  |  |  | 0 |
| **75** | **11** |  |  | + | + | + | 60 |
| **76** | **11** |  |  | +++ | + | + | 60 |
| **77** | **11** |  | +++ | + | + | + | 80 |
| **78** | **11** | +++ | + | + | + | + | 100 |
| **79** | **11** | +++ | + | + |  | + | 80 |
| **80** | **12** |  |  | + | + | + | 60 |
| **81** | **12** |  |  |  | + |  | 20 |
| **82** | **12** |  |  |  |  |  | 0 |
| **83** | **12** |  |  | + | + |  | 40 |
| **84** | **12** |  |  |  |  |  | 0 |
| **85** | **12** |  |  | + |  |  | 20 |
| **86** | **12** |  | + | + |  | + | 60 |
| **87** | **12** | + | + | + | + | + | 100 |
| **88** | **12** | +++ | + | + |  | + | 80 |
| **89** | **13** |  |  |  |  |  | 0 |
| **90** | **13** |  |  |  |  | + | 20 |
| **91** | **13** |  |  |  | + |  | 20 |
| **92** | **13** |  |  | + | + | + | 60 |
| **93** | **13** | + |  |  | + | + | 60 |
| **94** | **13** | + |  |  |  |  | 20 |
| **95** | **13** |  | + |  | + |  | 40 |
| **96** | **13** | + |  | + | + |  | 60 |
| **97** | **13** |  | + | + |  |  | 40 |
| **98** | **13** | +++ | + | + |  | + | 80 |
| **99** | **14** |  |  |  |  |  | 0 |
| **100** | **14** |  |  |  |  |  | 0 |
| **101** | **14** |  |  |  |  |  | 0 |
| **102** | **14** |  |  |  |  | + | 20 |
| **103** | **14** | + |  |  |  |  | 20 |
| **104** | **14** |  | + |  |  |  | 20 |
| **105** | **14** | + |  |  | + |  | 40 |
| **106** | **14** | +++ |  | + |  | + | 60 |
| **107** | **15** |  |  |  | + |  | 20 |
| **108** | **15** |  |  |  | + |  | 20 |
| **109** | **15** |  |  |  | + |  | 20 |
| **110** | **15** |  |  |  | + |  | 20 |
| **111** | **15** |  |  |  | + |  | 20 |
| **112** | **15** |  |  |  | + | + | 40 |
| **113** | **15** | + | + | + | + | + | 100 |
| **114** | **15** | +++ |  |  |  |  | 20 |
| **115** | **16** |  |  |  |  |  | 0 |
| **116** | **16** |  |  |  | + |  | 20 |
| **117** | **16** |  |  |  | + |  | 20 |
| **118** | **16** |  |  |  | + | + | 40 |
| **119** | **16** |  |  | + | + | + | 60 |
| **120** | **16** |  | + | + | + | + | 80 |
| **121** | **16** | +++ |  |  |  |  | 20 |
| **122** | **17** |  |  |  |  |  | 0 |
| **123** | **17** |  |  |  | + |  | 20 |
| **124** | **17** |  |  |  |  |  | 0 |
| **125** | **17** |  |  |  |  | + | 20 |
| **126** | **17** |  |  |  |  | + | 20 |
| **127** | **17** |  |  | + | + | + | 60 |
| **128** | **17** | + |  |  |  |  | 20 |
| **129** | **18** |  |  |  |  |  | 0 |
| **130** | **18** |  |  |  | + |  | 20 |
| **131** | **18** |  | + | + | + | + | 80 |
| **132** | **18** |  | + |  |  |  | 20 |
| **133** | **18** | + |  |  |  |  | 20 |
| **134** | **19** | + | + |  | + | + | 80 |
| **135** | **19** |  |  |  | + |  | 20 |
| **136** | **19** |  | + | +++ | +++ | + | 80 |
| **137** | **19** | + | +++ | + | + |  | 80 |
| **138** | **19** | + |  | + |  |  | 40 |
| **139** | **20** | + | + |  | + | + | 80 |
| **140** | **20** |  |  |  | + |  | 20 |
| **141** | **20** |  | + | +++ | +++ | +++ | 80 |
| **142** | **20** |  | +++ |  |  |  | 20 |
| **143** | **20** | +++ | +++ | + | +++ | + | 100 |
| **144** | **20** | + |  |  |  |  | 20 |
| **145** | **21** | + | + |  | + | + | 80 |
| **146** | **21** |  | + |  | + | + | 60 |
| **147** | **21** |  |  |  | + |  | 20 |
| **148** | **21** | + | + | +++ | +++ | +++ | 100 |
| **149** | **21** |  | +++ |  |  |  | 20 |
| **150** | **21** | +++ | +++ | + | + | + | 100 |
| **151** | **21** |  | +++ |  |  |  | 20 |
| **152** | **21** |  | + | + |  | +++ | 30 |
| **153** | **21** | +++ |  |  |  |  | 20 |
| **154** | **22** | + | + |  | + |  | 60 |
| **155** | **22** |  | + | + | + | + | 80 |
| **156** | **22** |  |  |  |  | +++ | 20 |
| **157** | **22** | + | + | +++ | +++ | + | 100 |
| **158** | **22** |  | +++ |  |  |  | 20 |
| **159** | **22** | + | + | + |  |  | 60 |
| **160** | **22** | + | +++ |  |  |  | 40 |
| **161** | **22** |  | + | + |  | +++ | 60 |
| **162** | **22** | +++ |  | + |  |  | 40 |
| **163** | **23** |  |  |  | + |  | 20 |
| **164** | **23** | + | + |  | + |  | 60 |
| **165** | **23** |  | + | + | + | + | 80 |
| **166** | **23** |  |  |  |  |  | 0 |
| **167** | **23** |  | + | + |  |  | 40 |
| **168** | **23** | + | + | +++ | +++ | + | 100 |
| **169** | **23** |  | +++ |  |  |  | 20 |
| **170** | **23** | + | + | +++ | + |  | 80 |
| **171** | **23** |  | + | + |  | +++ | 60 |
| **172** | **23** | +++ |  |  | + | + | 60 |
| **173** | **23** | +++ | + | + | + | + | 100 |
| **174** | **23** |  |  |  |  |  | 0 |
| **175** | **24** |  |  |  |  |  | 0 |
| **176** | **24** |  | + | +++ | +++ | + | 80 |
| **177** | **24** |  | + |  |  |  | 20 |
| **178** | **24** |  | + | + |  | +++ | 60 |
| **179** | **24** | +++ |  |  |  | + | 40 |
| **180** | **24** | +++ | + | + | + |  | 80 |