



Sofia®

Technical Bulletin

Novel Serotypes Detected with Sofia *S. pneumoniae* FIA

Streptococcus pneumoniae (SPN) is the leading cause of community-acquired pneumonia.¹ Among the different virulence factors associated with pneumococci, capsular polysaccharides are considered to be the most important as they surround the bacteria and protect it from phagocytes.² Currently there are over 90 different capsular serotypes whose distributions vary geographically and temporally in terms of nasopharyngeal carriage, pathogenicity and clinical presentation.³ It is recommended that serotype distribution be monitored to detect the emergence and expansion of undiscovered serotypes and recombinant capsular clones.

This bulletin outlines the analytical performance of Sofia in the detection of several newly discovered and unique serotypes of *S. pneumoniae* (6C, 6D, 6F, 6G, 6H, 11E, 20A, 20B and CSR SCS-2) whose performance with lateral flow diagnostic test technologies has not been well established. (CSR SCS-2 is a laboratory strain producing no capsule.)

All of the serotypes listed above were diluted to intermediate concentrations in a negative urine pool to a final concentration 1.67 times the pre-determined limit of detection (LOD) of Serotype 14 (5.00E+03 CFU/mL) (data from previous study).

Eight out of nine serotypes were detected at a concentration of 5.00E+03 CFU/mL. Serotype 20B was detected at 1.00E+04 CFU/mL, as shown in Table 1.

Table 1 Serotype Inclusivity – Detection Level

Serotype	LOD
6C	5.00E+03 CFU/mL
6D	5.00E+03 CFU/mL
6F	5.00E+03 CFU/mL
6G	5.00E+03 CFU/mL
6H	5.00E+03 CFU/mL
20A	5.00E+03 CFU/mL
20B	1.00E+04 CFU/mL
11E	5.00E+03 CFU/mL
CSR SCS-2	5.00E+03 CFU/mL

¹ <http://www.who.int/mediacentre/factsheets/fs331/en>

² Song, J. J Korean Med Sci 2013,; 28 4-15.

³ Geno, K, Clin. Microbiol Rev July 2015 Vol. 28 N.3.

In conclusion, Sofia S. pneumoniae FIA detects the eight newly characterized serotypes and the CSR SCS-2 laboratory strain producing no capsule.

Please contact Quidel Technical Support at 800.874.1517 (in the U.S.), 858.552.1100 (outside the U.S.) or technicalsupport@quidel.com if you have any questions regarding the Sofia S. pneumoniae FIA, or any Quidel product. Our hours of operation are Monday through Friday, 7:00 a.m. to 5:00 p.m. Pacific Time.

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