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TECHNICAL NOTE # 26-001

RE: NGS CF Control Panel G211*plus* (p/n: G211*plus*)
ASSAY: *CFTR* 100+ Panel (Agena Bioscience)

DATE: 11/03/2026

This Technical Note explains the differences in variant reporting between Agena Bioscience *CFTR* 100+ Panel and the NGS CF Control Panel G211*plus* Package Insert.

NGS CF Control Panel G211*plus* Protocol for use with the *CFTR* 100+ Panel:

Controls are ready to use; no extraction is needed.

1. Thaw all controls completely.
2. Allow the controls to be tested to come to room temperature (18°C to 25°C).
3. Mix well by flicking the control tubes and vortex immediately before using.
4. Quick spin to remove droplets from the tube cap before opening.
5. In a separate tube, add 4 µL of control into 196 µL of 1x TE Buffer (1:50 dilution)
6. Follow all other procedures as outlined in the CFTR 100+ Panel User Guide
   a) Dispense 3 µL of PCR cocktail (for W1-W6) to wells of a new microtiter plate, according to the plate layout.
   b) Add 2 µL of well-mixed, diluted G211*plus* control to each well according to the plate layout.
   c) Discard unused diluted sample.
7. Opened, undiluted control should be tightly capped and returned to freezer (-25°C to -15°C) immediately after use.

Table 1: *CFTR* 100+ discrepant result evaluation when running G211*plus* controls

Bottle	Variant cDNA Name (HGVS) (CFTR Legacy Name)	G211*plus* genotype	*CFTR* 100+ reported genotype	Reason for discrepancy in *CFTR* 100+ reporting
A	c.54-5940_273+10250del21kb (CFTRdele2,3)	HET	HOM	Control is missing intronic coverage for the WT allele.
A	c.868C>T (Q290X)	HET	No call	Control is missing intronic coverage.
A	c.1651G>A (G551S)	HET	HOM	Extension primer interference from nearby variant c.1647T>G (S549R) impacts WT allele.
B	c.489+1G>T (621+1 G>T)	HET	WT	Nearby c.443T>C (I148T) interferes with PCR primer.
D	c.803delA (935delA)	HET	No call	Control is missing intronic coverage.
F	c.3353C>T (S1118F)	HET	WT	Control is missing intronic coverage for the MUT allele.

Note on c.2173G>A (E725K) assay: The E725K assay is needed to support the c.2175dup (2307insA) assay. E725 is wild-type in the NGS CF G211*plus* Control Panel.