

	<i>Illumigene</i>	Solana GAS	Solana Strep Complete	Simplexa	Cobas Strep A	Alere i Strep A 2	Alere i Strep A	Aries Group A Strep	Lyra Direct Strep	Xpert Xpress Strep A
Manufacturer	Meridian BioScience	Quidel Corp.	Quidel Corp.	DiaSorin Molecular	Roche Diagnostics	Abbott Diagnostics	Abbott Diagnostics	Luminex Corp.	Quidel Corp.	Cepheid
Chemistry	LAMP	Isothermal HDA	Isothermal HDA	Real Time PCR	Real Time PCR	Isothermal DNA amplification	Isothermal DNA amplification	Real Time PCR	Multiplex Real Time PCR	Real Time PCR
Ct report	No	No	No	Yes	No	No	No	Yes	Yes	Yes if MC No if CW
Targets	<i>speB</i> gene of GAS	<i>sdaB</i> gene of GAS	<i>sdaB</i> gene of GAS protein G gene for GCS/GGS	<i>speB</i> gene of GAS	transcriptional regulator gene Spy1258	GAS (modified primers) Target details unavailable	GAS Genome Target details unavailable	<i>sdaB</i> gene of GAS	<i>comX1.1</i> gene for GAS <i>lacC</i> gene in GCS/GGS	<i>speB</i> gene of GAS
Complexity	Moderate	Moderate	Moderate	Moderate	CLIA waived	CLIA waived	CLIA waived	Moderate	High	CLIA waived
TAT	60 min	35 min	35 min	60 min	15 min	6 min	8 min	120 min	60–70 min	18–24 min
Culture confirmation required	No	No	No	No	No	No	Yes	No	Yes	No
Sensitivity*	98.0% (95% CI: 93.1%–99.5%)	98.2% (95% CI: 95.5% to 99.3%)	GAS 98.9% (95% CI: 98.3%–99.2%) GGS/GCS–100% (95% CI: 95.3%–100%)	97.4%[95% CI: 93.6%–99.0%]	98.3% (95% CI: 95.0–99.4%)	98.5% (95% CI: 95.6–99.5%)	95.9% (95% CI: 91.4–98.1%)	97.5% (95% CI: 93.7–99.0%)	GAS 96.5% (95% CI: 91.3%–98.1%) GCS/GGS–95.7% (95% CI: 88.1%–98.5%)	MC 100% (95% CI: 97.3–100%) CW 99.4% (95% CI: 96.5–99.9)
Specificity*	97.7% (95% CI: 96.3%–98.6%)	97.2% (95% CI: 95.9% to 98.1%)	GAS 99.5% (95% CI: 99.1%–99.7%) GCG/GGS–99.5% (95% CI: 99.1%–99.7%)	95.2% (95% CI: 93.9%–96.3%)	94.2% (95% CI: 91.5–96.1%)	93.4% (95% CI: 91.4–94.9%)	94.6% (95% CI: 91.6–96.6%)	97.8% (95% CI: 96.0–98.8%)	GAS 98.0% (95% CI: 97.0%–98.6%) GCS/GGS–98.3% [95% CI: 97.4%–98.9%]	MC 94.1% (95% CI: 91.5–95.9%) CW 94.1% (95% CI: 91.6–95.9)
Quality control	Each lot and each shipment	Each lot and each shipment	Each lot and each shipment	*No specific details obtained from PI	Each lot	Each shipment/ operator	Each shipment/ operator	*No specific details obtained from PI	*No specific details obtained from PI	Each lot, each shipment, new operator
Kit Storage conditions	2–27°C	2–8°C	2–8°C	–10°C to –30°C	2–8°C	2–30°C	2–30°C	15–30°C	2–6°C	2–28°C
Instrument	illumipro–10	Solana	Solana	LIAISON MDx	Liat analyzer	Alere i	Alere i	Luminex ARIES systems	ABI 7500 Fast DX Thermocycler	GeneXpert

*From package insert-All methods compared to culture as reference method

#From package insert-External controls may be used in accordance with local, state, and/or federal regulations or accrediting organizations, as applicable.

LAMP, loop-mediated isothermal amplification; HDA, helicase-dependent amplification; PCR, polymerase chain reaction; Ct, cycle threshold

GAS, group A streptococcus; GCS, group C streptococci; GGS, group G streptococci; CI, confidence interval