

2019-nCOV Ab Test (Colloidal Gold)

Clinical Test Report



Clinical Report

1. Objective

To evaluate the quality performance and clinical application value of 2019-nCoV AbTest (Colloidal Gold). Clinical research was conducted in 5 institutions.

2. Sample amount and type

In this clinical study, the total sample amount was 517. (1) Confirmed cases: Both Clinical and PCR confirmed cases (212 cases in all). (2) Excluded cases: Both Clinical and PCR excluded cases (305 cases in all).

3. Test Sensitivity and specificity analysis of assessment reagents

3.1 IgM Results for all samples

Table 1: IgM Results for All Samples

| | | PCR | 4-4-1 | | |
|----------------|----------|-----------|----------------|---------------|--|
| | | Positive | Negative | total | |
| 2019-nCOV Ab | Positive | (A) 151 | (B) 5 | (A+B)156 | |
| TestIgM Result | Negative | (C) 61 | (C) 61 (D) 300 | | |
| Total | | (A+C) 212 | (B+D) 305 | (A+B+C+D) 517 | |

| PPA (Positive percentage agreement)=A / (A+C) | 71.23% | 95%CI | 64.80% -76.90% |
|---|--------|-------|----------------|
| NPA (Negative percentage agreement)= D/ (B+D) | 98.36% | 95%CI | 96.22%-99.30% |
| Overall agreement | 87.23% | 95%CI | 84.08% -89.84% |

Conclusion : The IgM PPA is 71.23%, and the IgM NPA is 98.36%, the IgM overall agreement is 87.23%.



3.2 IgG results for all samples

| | | PCR | 4-4-1 | | |
|----------------|----------|----------------|---------------|-----------|--|
| | | Positive | Negative | total | |
| 2019-nCOV Ab | Positive | (A) 184 | (A) 184 (B) 1 | | |
| TestIgG Result | Negative | (C) 28 (D) 304 | | (C+D) 332 | |
| Total | | 212 | (A+C) 305 | (B+D) 517 | |

| PPA (Positive percentage agreement)=A / (A+C) | 86.79% | 95%CI | 81.57% -90.70% |
|---|--------|-------|----------------|
| NPA (Negative percentage agreement)= D/ (B+D) | 99.67% | 95%CI | 98.17% -99.94% |
| Overall agreement | 94.39% | 95%CI | 92.06% -96.07% |

Conclusion : The IgG PPA is 86.79%, and the IgG NPA is 99.67%, the IgG overall agreement is 94.39%.

3.3 Overall Clinical Study Results for all samples

Table 3: Overall Clinical Study Results for All Samples

| | | PC | Total | | |
|--------------|----------|-----------|----------|-------|-----|
| | | Positive | Negative | TOLAI | |
| | | lgG+/lgM+ | 141 | 0 | 141 |
| 2019-nCOV Ab | Positive | lgG-/lgM+ | 10 | 5 | 15 |
| Test Result | | lgG+/lgM- | 43 | 1 | 44 |
| | Negative | lgG-/lgM- | 18 | 299 | 317 |
| | Total | | 212 | 305 | 517 |

| PPA (Positive percentage agreement) | 91.51% | 95%CI | 86.98% -94.56% |
|-------------------------------------|--------|-------|----------------|
| NPA (Negative percentage agreement) | 98.03% | 95%CI | 95.78% -99.10% |
| Overall agreement | 95.36% | 95%CI | 93.19% -96.86% |



4. Clinical Study Results by Days Post Hospital Admission

4.1 IgM Results for 163 samples by days post hospital admission

Table 4: IgM Results for 163 Samples by Days Post Hospital Admission

| | PCR | lgM | | М |
|-------------------------------|----------------------|----------|--------|-----------------|
| By days since to the hospital | Positive at any time | Positive | PPA | 95%CI |
| ≪7 days | 107 | 84 | 78.50% | 69.81% -85.23% |
| 8-14 days | 26 | 20 | 76.92% | 57.95% -88.97 % |
| >15 days | 30 | 15 | 50% | 33.15% -66.85% |

4.2 IgG Results for 163 samples by days post hospital admission

Table 5: IgG Results for 163 Samples by Days Post Hospital Admission

| | PCR | lgG | | 3 |
|-------------------------------|----------------------|----------|--------|----------------|
| By days since to the hospital | Positive at any time | Positive | PPA | 95%CI |
| ≤7 days | 107 | 88 | 82.24% | 73.7% -88.2% |
| 8-14 days | 26 | 24 | 92.31% | 75.86% -97.87% |
| >15 days | 30 | 30 | 100% | 88.65% -100% |

4.3 Overall Clinical Study Results for 163 samples by days post hospital admission

Table 6: Overall Clinical Study Results by Days Post Hospital Admission

| | PCR | lgM or lgG | | |
|-------------------------------|----------------------|------------|--------|----------------|
| By days since to the hospital | Positive at any time | Positive | PPA | 95%CI |
| ≤7 days | 107 | 94 | 87.85% | 80.32% -92.76% |
| 8-14 days | 26 | 25 | 96.15% | 81.11% -99.32% |
| >15 days | 30 | 30 | 100% | 88.65% -100% |

