Open Pouch Stability Study Report of COVID-19 Antigen Rapid Test

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Open Pouch Stability Study of COVID-19 Antigen Rapid Test

1. Purpose

Evaluate open pouch stability influence for COVID-19 Antigen Rapid Test.

2. Material

ICOV-502 Lot1: COV20060001-T

Lot2: COV20060002-T Lot3: COV20060003-T

3. Procedure

COVID-19 Antigen samples including negative specimen, weak positive and middle positive were run in triplicate using the COVID-19 Antigen Rapid Test (Nasopharyngeal Swab) which were opened pouch after 10 minutes, 20 minutes, 30 minutes, 1 hour, 1.5 hours and 2 hours at following condition. All results were read at 15 minutes after sample application.

Condition 1: Room temperature and high humidity (≥90%)

Condition 2: 45 $^{\circ}$ C and normal humidity (\leq 60%) Condition 3: 45 $^{\circ}$ C and high humidity (\geq 90%)

Condition 4: Room temperature and normal humidity (≤60%)

4. Standard

The test complies with the standard of EN 23640

5. Acceptance Criteria

Open pouch have no effect on the results. When a positive sample is tested, the result is positive; when a nagative sample is tested, the result is nagative.

6.Result:

Table-Open Pouch Stability Study Result

Sample	Time	Condition 1								
		COV	/2006000	01-T	СО	V200600	02-	COV	/200600	03-T
Negative	10min		-	-	-	-	-	-	-	-
	20min	=	-	-	-	-	-		: <u>-</u>	=
	30min	-	-	-	-	1-	-	-	-	-
	60min	-	-	-	-	7-	-	-	-	-
	90min	-	-	-	-		-	-	-	-
	120min	-	-	-	-	-	-	-	-	-
Weak Positive	10min	+	+	+	+	+	+	+	+	+
	20min	+	+	+	+	+	+	+	+	+
	30min	+	+	+	+	Ť	+	+	+	+
	60min	+	+	+	+	+	+	+	+	+
	90min	+	+	+	+	+	+	+	+	+
	120min	+	+	+	+	+	+	+	+	+

	10min	+	+	+	+	+	+	+	+	+	
Strong	20min	+	+	+	+	+	+	+	+	+	
	30min	+	+	+	+	+	+	+	+	+	
Positive	60min	+	+	+	+	+	+	+	+	+	
	90min	+	+	+	+	+	+	+	+	+	
	120min	Ť	+	+	+	+	+	+	+	+	
C 1	TD'	Condition2									
Sample	Time	COV20060001-T COV20060002- COV20060003-T									
	10min	-	-	-	-		-	-	-	-	
	20min	-	-	-	-	-	-	-	-	-	
3.T	30min	-	=	-	=		-	-	-	-	
Negative	60min	-	43	18	8	-	-	=	-	-	
	90min	-	-	-	-	-	-	-	-	-	
	120min	-	-	-	-	-	-	-	-	-	
	10min	+	+	+	+	+	+	+	+	+	
	20min	+	+	+	+	+	+	+	+	+	
Weak	30min	+	+	+	+	+	+	+	+	+	
Positive	60min	+	+	+	+	+	+	+	+	+	
	90min	+	Ť	+	+	+	+	+	+	+	
	120min	+	+	+	+	+	+	+	+	+	
	10min	+	+	+	+	+	+	+	+	+	
	20min	+	+	+	+	+	+	+	+	+	
Strong	30min	+	+	+	+	+	+	+	+	+	
Positive	60min	+	+	+	+	+	+	+	+	+	
	90min	+	+	+	+	+	+	+	+	+	
	120min	+	+	+	+	+	+	+	+	+	
C1-	TP!	Condition3									
Sample	Time	CO/	/200600	01-T	COV20060002-			COV20060003-T			
	10min	-	-	-	-	-		-	-	-	
	20min	-	-	-	-	1-	-	-	-	•	
Monetine	30min	-	-	-	_	-	-	-	1-	-	
Negative	60min	-)	-	-		-	-	-	-	
	90min	-	-	-	-	; -	-	=	-	-	
·	120min	-	-	-	-	-	-	-	_	-	
Weak	10min	+	+	+	+	+	+	+	+	+	
	20min	+	+	+	+	+	+	+	+	+	
	30min	+	+	+	+	+	+	+	+	+	
Positive	60min	+	+	+	+	+	+	+	+	+	
	90min	+	+	+	+	+	+	+	+	+	
	120min	+	+	+	+	+	+	+	+	+	
Strong	10min	+	+	+	+	+	+	+	+	+	

Positive	20min	+	+	+	+	+	+	+	+	+
	30min	+	+	+	+	+	+	+	+	+
	60min	+	+	+	+	+	+	+	+	+
	90min	+	+	+	+	+	+	+	+	+
	120min	+	+	+	+	+	+	+	+	+
C 1	m.	Condition4								
Sample	Time	COV20060001-T			СО	V200600	02-	COV20060003-T		
	10min	-	-	-	-	-	-	-	-	-
	20min	-	-	-	-	-	-	-	-	-
NI	30min	-	-	-	-	-	-	-	-	-
Negative	60min	-	-	-	-	.=	-	-	-	-
	90min	-	47	=	=	-	-	-	-	-
	120min	-	-	-	-	-	-	-	-	-
	10min	+	+	+	+	+	+	+	+	+
	20min	+	+	+	+	+	+	+	+	+
Weak	30min	+	+	+	+	+	+	+	+	+
Positive	60min	+	+	+	+	+	+	+	+	+
	90min	+	+	+	+	+	+	+	+	+
	120min	+	+	+	+	+	+	+	+	+
	10min	+	+	+	+	+	+	+	+	+
Strong	20min	+	+	+	+	+	+	+	+	+
	30min	+	+	+	+	+	+	+	+	+
Positive	60min	+	+	+	+	+	+	+	+	+
	90min	+	+	+	+	+	+	+	+	+
	120min	+	+	+	+	+	+	+	+	+

Note: "-" mean negative result, "+" mean positive result

As can be seen from the above table, the test results of negative samples were still negative and positive samples were still positive at different times after open pouch. so open pouch for 10min-120min has no influence on the test result of the negative and positive sample. However, it is not recommended to open pouch for too long, because it is easy to cause the backflow of liquid. The recommended time is within 1h after bag pouch.

7. Conclusion:

Results above indicated best results of COVID-19 Antigen Rapid Test will be got within 1 hour after opening the pouch.