Quick Performance Validation Reference





SICKLECHECK™

Rapid Immunochromatographic assay for the simultaneous detection of Hb S and Hb A in human whole blood

Intended Use:	
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Sicklecheck[™] a rapid, qualitative, Immunochromatographic assay for the simultaneous detection of Hb S and Hb A in human whole blood sample for diagnosis of sickle cell disorder.

Key Points:

Utilizes monoclonal anti Hb A & anti Hb S antibodies	Facilitates specific detection of Hb A & Hb S	
Differentiate Hb A & Hb S	Facilitates differentiation of sickle cell trait and disease	
Competitive Immunochromatographic assay	No risk of prozoning	
Excellent sensitivity and specificity Sensitivity 100% and specificity 100% compared		
No interference of presence of fetal hemoglobin in sample	Highly specific result for diagnosis of sickle cell disorder.	
10µl Whole blood sample	Low specimen volume required	
Simple test protocol	Suitable for use in field testing in limited resource setting	
Storage at 4°C-40°C	Suitable for most climatic conditions	

Performance Validation Report Summary:

1. External Evaluation - I:

Validated by ICMR – RMRC Bhubaneshwar with 463 samples (135 Children and 328 Adult patients)

Sensitivity: 98.14%	Specificity: 99.03%
Positive predictive Value : 98.1%	Negative Predictive Value : 99.02%

2. External Evaluation - II:

Validated by MRU – MKCG Medical College. Berhampur (Ganjam) with 359 samples (including 22 infant samples, 5 samples with High persistence fetal hemoglobin)

	Sensitivity	Specificity
For Sickle cell disease	97.92%	100%
For Sickle cell Trait	99.07%	98.81%

3. External Evaluation - III:

Validated by Valsad Raktdan Kendra. Gujarat with 200 samples (112 Sickle cell trait and 27 Sickle cell disease)

	Sensitivity	Specificity
Sickle Cell disease (SCD)	100%	100%
Sickle Cell Trait (SCT)	100%	100%

4. External Evaluation - IV:

Validated by Phulo-Jhano Medical College & Hospital, Dumka. Jharkhand, with 235 samples (with 38 infant samples and 197 adult samples)

	Sensitivity	Specificity
Sickle Cell Disease (SS)	100%	100%
Sickle Cell Trait (AS)	100%	100%