

Methods Comparison

Methodology	qPCR	MLPA (Gold standard)	Origin
Target	SMN1 Exon7	SMN1+SMN2 Exon7+8	
Copy Number	0, 1, ≥ 2	0, 1, 2, 3, ≥ 4	
Requirement	Low	High	Low
Convenience	High	Low	High
Duration	2 Hours	2 Days	2.5 Hours
Advantages	-	Multiplex PCR, dual exon verification, single-tube integration of SMN1 & SMN2	

Experimental Procedure



Product Advantages

- Comprehensive Testing**
Single-Tube Integration of SMN1/2 Exons 7/8
- High Accuracy**
Dual Internal Control Monitoring, Accurate Differentiation to ≥ 4 Copies
- Easy Operation**
Single Amplification, Direct to CE
- Dual Exon Verification**
Avoid False Positives and Negatives, Indicate SMN Gene Conversion
- SMA Phenotype Prediction**
Provide Basis for Subsequent Clinical Diagnosis, Prognosis, and Management
- Superior to the Gold Standard**
Performance equal to the Gold Standard, Significantly Optimizes Process and Time
- Automated Interpretation**
Automated Analysis Software, Reduces Human Error

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PCR-CE SMN1/2 Kit



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Answers for better life

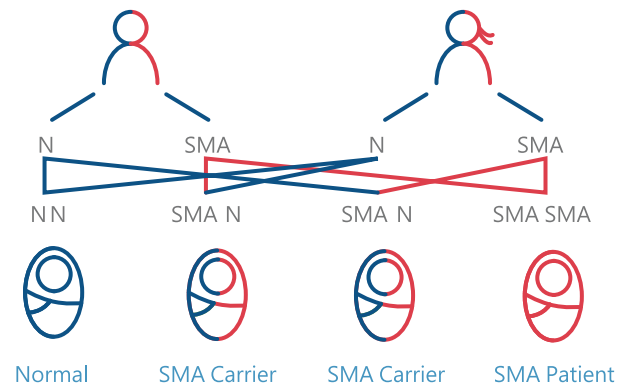
Spinal Muscular Atrophy (SMA)

Spinal muscular atrophy (SMA) is a common neuromuscular disorder in children and is the leading genetic cause of infant mortality.

It manifests as progressive muscular atrophy, affecting motor muscles and advancing to skeletal, respiratory, and digestive system abnormalities, often leading to respiratory failure and death.

SMA is caused by mutations in the SMN1 gene and influenced by the SMN2 gene. SMN1 determines the onset of the disease, while SMN2 affects the severity. Genetic testing of SMN1 and SMN2 is crucial for disease prevention, genetic counseling, and clinical treatment.

High Carrier Frequency

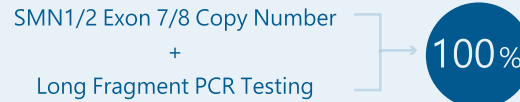


(1 in 4 patient and 1 in 2 carriers)

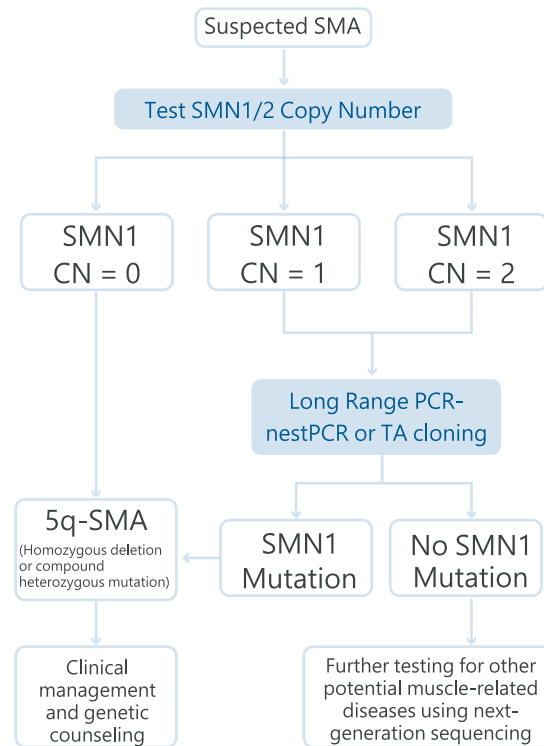
The carrier frequency among the Asian population is 1 in 48, making it a high carrier rate monogenic disease. In families with carriers, there is a 1/4 chance of having a child with SMA and a 1/2 chance of having a child who is a carrier.

Expert Consensus on SMA Diagnosis

Complete SMA solution provided by Origin :



Genetic diagnosis report includes:
SMN1 and SMN2 Exon 7 and 8 Copy Number

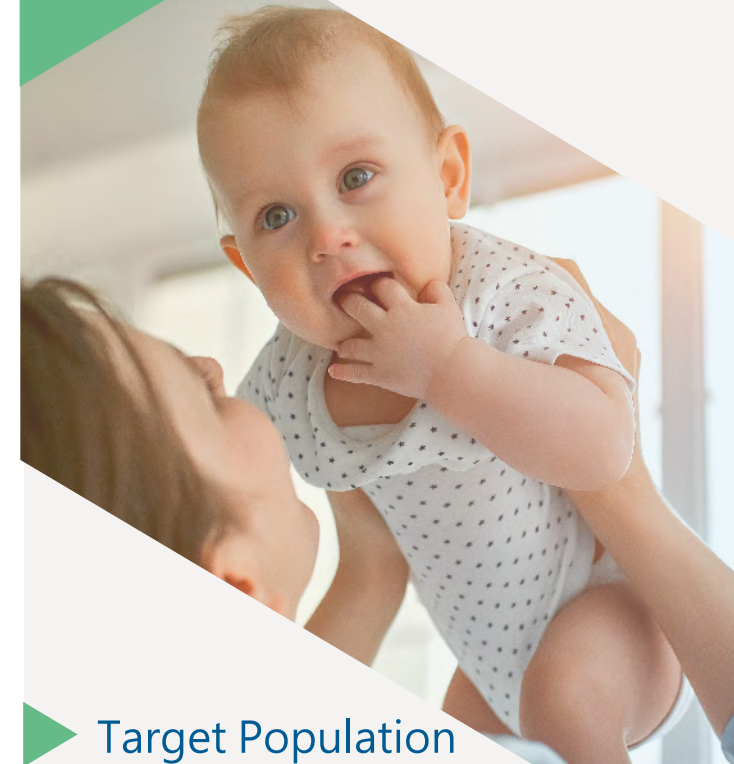


SMA Diagnosis Flowchart

(2020 Expert Consensus on Spinal Muscular Atrophy Genetic Testing)

The Three-tier Prevention of SMA

Reduce birth defects
Improve the quality of the population



Target Population

- Pre-pregnancy counseling
Prevent the risk in the next generation
- Prenatal screening
Effectively prevent the birth of children with SMA
- Newborn screening
Early intervention, and improved prognosis
- SMA high-risk family assessment
Risk assessment for recurrence
- Suspected SMA patients
Precision diagnosis, phenotype prediction, providing a basis for diagnosis and management