

WB Seven Common Mutation Detection in β- Globin Gene for Beta Thalassemia by end-point PCR

OUR CERTIFICATIONS

Our certifications ✓ ISO 13486:2016 certified ✓ ISO 9001: 2015 certified ✓ DPIIT (Govt. of India) certified ✓ Institutional Biosafety Committee (DBT) ✓ MSME Registered ✓ Trademark Registered with Trade Mark, Registry, Govt. of India

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GRANTS/AWARDS

- ✓ Biotechnology Ignition Grant Award-2013
- ✓ Grand Challenge-TB Control Bill and Melinda Gates Foundation | USAID | BIRAC, Govt. of India Phase-1 Grant -2015;
- ✓ Grand Challenge-TB Control Bill and Melinda Gates Foundation | USAID | BIRAC, Govt. of India Phase 2 Grant-2017
- ✓ Grand Challenge Explorations- Bill and Melinda Gates Foundation | USAID | BIRAC, Govt. of India Grant-2017
 - ✓ DBS-NUS Social Venture Challenge Asia 2017 Finalist.
- ✓ BIRAC (Dept. of Biotechnology) Pre- Accelerator MedTech Challenge Grant-2021
- Fastest Growing Indian Company Award (2019) – International Achievers Conference, Bangkok

 ✓ Small Business Innovation Research Initiative (SBIRI) (2013) – Dept. of Science and Tech., Govt. of India.

INTRODUCTION

- Thalassemia is a hereditary genetic disorder in which the body makes an abnormal form of hemoglobin, a protein in red blood cells that carries oxygen. It is caused due to mutations in the HBB gene.
- This disorder is of two different types Thalassemia Major and Thalassemia Minor, depending upon the type of mutations present in patients.
- In Thalassemia Minor patients there is reduced ability to produce Beta-globin protein and reduced functional capacity of hemoglobin. In Thalassemia Major, the patient's Beta-globin is not produced and has dysfunctional hemoglobin.
- Children affected with Beta Thalassemia exhibit the symptoms of anemia, poor growth and skeletal abnormalities during infancy.
- Each year about 40,000 infants are born with serious hemoglobinopathies and carrier frequency is 270 million.
- The disease follows an autosomal recessive pattern of inheritance. If both the parents are carriers, there are 25% chances of their children carrying the faulty gene. Therefore, it is strongly recommended to undergo genetic testing for Beta Thalassemia to avoid serious consequences in newborn children.
- WobbleBase β-Thalassemia Mutation PCR Detection kit which includes extraction reagents for blood sample and PCR amplification reagents for six most common mutations in βglobin gene

KEY FEATURES

- Easy workflow with ready-to-use solutions
- Robust and reproducible results with high performance
- PCR based detection of six most common prevailing mutations in β globin gene
- Includes all the reagents required to perform sample to PCR run
- High sensitivity & accuracy
- Available in different pack sizes
- Reliable and cost effective.



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✓ TATA Health Fund (Phase 1 -Biosafety) – 2024

SPECIFICATIONS

Technology	Conventional PCR amplification and gel electrophoresis technique		
Target Mutations	The assay detects 7 common β -globin gene mutations: IVS 1-1 (G-> T), IVS 1-5 (G-> C), CD 8/9 (+G), CD 41/42 (-TCTT), 619 base pair deletion,CD5 (-CT) and CD15 (G- A)		
Type of analysis	Qualitative		
Reporting Units	detected, not detected or inconclusive		
Validated Specimen	Whole blood		
Controls	Inhibition and extraction control, negative control, positive control		
Storage	-20 ± 5 °C		
Instrument	Compatible with a wide range of conventional PCR devices.		

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CATALOG NUMBER	PRODUCT INFORMATION	CONTENTS
B-THALQ/WBB/50	WB β-Thalassemia Mutation PCR Detection kit	50 reactions
B-THALQ/WBB/100	WB β-Thalassemia Mutation PCR Detection kit	100 reactions