



**Laboratory Investigation Report** 

Patient Name Centre Age/Gender OP/IP No/UHID MaxID/Lab ID Collection Date/Time Ref Doctor Reporting Date/Time

> **Molecular Diagnostics**

**Test Name** Result Unit **Bio Ref Interval** 

#### MTHFR Mutation Analysis\*

Real Time PCR

# MTHFR Mutation Analysis (RT-PCR)

MTHFR GENE, C677T Not Detected

MTHFR GENE, A1298C Heterozygous Mutation

Detected

## Interpretation

Result	Comments
Homozygous Mutation Detected	Both alleles carry mutation
Heterozygous Mutation Detected	Single allele carries mutation
Not Detected	Both alleles do not carry mutation

#### Note:

- 1. This is an in-house developed qualitative assay.
- 2. All results should be interpreted in context of clinical findings.
- 3. This assay detects mutations in MTHFR gene (C677T & A1298C)
- 4. Test conducted on Whole blood.
- 5. Presence of PCR inhibitors if any, might lead to amplification failure.

### Comments

Methylenetetrahydrofolate reductase (MTHFR) is an enzyme that breaks down the amino acid homocysteine. The MTHFR gene that codes for this enzyme can mutate, which can interfere with the enzyme's ability to function normally or completely inactivate it. Genetic polymorphism associated with severe MTHFR deficiency is defined by a C to T substitution at position 677 (C677T) and A to C substitution at position 1298 (A1298C) of the MTHFR gene. These mutations lead to the incorporation of amino acid alanine (A) instead of valine (V) at position 222 and glutamate to alanine substitution at codon 429 respectively of the MTHFR protein. These mutations may lead to hyperhomocysteinemia

### Kindly correlate with clinical findings

\*\*\* End Of Report \*\*\*

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Test Performed at :910 - Max Hospital - Saket M S S H, Press Enclave Road, Mandir Marg, Saket, New Delhi, Delhi 110017 Booking Centre: 794 - Max Hospital - Vaishali, W-3, Sector-1, Vaishali, Ghaziabad-201012, U.P, 0120418800 The authenticity of the report can be verified by scanning the Q R Code on top of the page

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