MAYO CLINIC
Mayo Medical Laboratories

TEST OBSOLETE
NOTIFICATION DATE: September 9, 2013
EFFECTIVE DATE: October 9, 2013

CYTOCHROME P450 2D6 GENOTYPE FOR TAMOXIFEN HORMONAL THERAPY

Test ID: 2D6T
Secondary ID: 87966

EXPLANATION: Effective October 9, 2013, this assay will become obsolete. It has been incorporated into the new cascade assay, 2D6CB, which became available on August 28. 2D6CB utilizes multiple methodologies to fully identify a comprehensive genotype to ensure a more accurate phenotype prediction.

RECOMMENDED ALTERNATIVE TEST:
2D6CB, Cytochrome P450 2D6 (CYP2D6) Comprehensive Cascade, Blood

USEFUL FOR:
- Providing information relevant to tamoxifen, psychotropic medications (including fluoxetine, nortriptyline, paroxetine, and pimozide), codeine, and tramadol, as well as other medications metabolized by CYP2D6
- Determining the exact genotype when other methods fail to generate this information or if genotype-phenotype discord is encountered clinically
- Identifying exact genotyping when required (e.g., drug trials, research protocols)
- Identifying novel mutations that may interfere with drug metabolism

TESTING ALGORITHM: Cytochrome P450 2D6 (*CYP2D6*) Comprehensive Cascade, Blood, will always include *CYP2D6* genotype testing via Luminex (tier one). Tier two reflex testing will be performed as appropriate and will include *CYP2D6* Copy Number Variation, B. If additional testing is needed, any or all of the following tier three testing will be performed: *CYP2D6* Full Gene Sequencing, B; *CYP2D6-2D7* Gene Sequencing, B*; CYP2D7-2D6* Gene Sequencing, B; *CYP2D6* Duplication Sequence A, B; *CYP2D6* Duplication Sequence B, B; and *CYP2D6* Duplication Sequence C, B.

METHODOLOGY:
Tier 1: Polymerase Chain Reaction (PCR) with Allele-Specific Primer Extension (ASPE)
Tier 2: Real-Time Quantitative Polymerase Chain Reaction (PCR)
Tier 3: Polymerase Chain Reaction (PCR) Followed by DNA Sequence Analysis

REFERENCE VALUES: A comprehensive interpretive report will be provided.

NOTE: Please see 2D6CB New Test Announcement (August 14, 2013) for full details.

QUESTIONS: Contact your Mayo Medical Laboratories' Regional Manager or
Shirley Pokorski, MML Laboratory Technologist Resource Coordinator
Telephone: 800-533-1710