FEINGOLD SYNDROME
MYCN GENE SEQUENCING

Feingold syndrome (OMIM 164280) is an autosomal dominant disorder caused by mutations in the
MYCN gene. Feingold syndrome is also referred to as Oculodigitoesophagealduodenal syndrome
(ODED), Microcephaly-Oculo-Digito-Esophageal-Duodenal syndrome (MODED), or Microcephaly,
Mental retardation, and Tracheoesophageal fistula syndrome (MMT syndrome). Feingold syndrome is
characterized by short palpebral fissures, hand and foot abnormalities including characteristic short
middle phalanges of the second and fifth fingers, and gastrointestinal atresias.

Testing: Testing is performed by sequencing exons 2 and 3 (coding exons) and the surrounding intronic
regions of the MYCN gene. Exon 1, a non-coding exon, will also be sequenced. This will detect point
mutations, small deletions, and small insertions. It will not detect a partial or whole gene deletion or
duplication.

MYCN is the only gene known to be associated with Feingold syndrome. Sequence analysis detects
mutations in 65% of individuals with a clinical suspicion of Feingold syndrome. Deletions are detected in
another 10% but would not be detected by this assay. The mutation detection rate is higher for
individuals whose phenotype includes the typical digital anomalies seen in Feingold syndrome. The
absence of digital anomalies makes it less likely that a MYCN mutation is the underlying cause.

Turnaround time: 10 -14 days

CPT codes and cost: 83891 (x1)  83898 (x4)  83904 (x8)  83912 (x1) $ 350

BILLING: We do not bill third party payers (insurance companies) for samples received from external
sources. The person or institution (Clinical Lab; Send-out Lab; Physician Office) sending the
sample is responsible for full payment of the invoices within 30 days of receipt of the invoice. If the
patient is on Medical assistance, please contact the lab prior to sample submission. Direct patient billing
will be accepted only when a valid credit card form is received with the patient sample.

Online resources:
Facsimile Verification Form

Name of Facility receiving Fax: ________________________________

Name of Physician/Lab receiving Fax: ________________________________

Street Address: ____________________________________________________

City ___________________________ State: _____

Fax Number: ____________________________________
(to which lab results and /or patient information may be sent)

Phone Number: ________________________________

By signing this Facsimile Verification Form, I validate the accuracy of the above information and assume responsibility for assuring that the Fax machine is in a location which will maintain confidentiality of all reports transmitted by the Molecular Diagnostics Laboratory of the Alfred I. duPont Hospital for Children, to the above fax number.

Authorized Contact Person: ________________________________

Signature: ________________________________ Date: ______________

Title: ________________________________

In our continuing efforts to maintain patient confidentiality, the Molecular Diagnostics Laboratory of the Alfred I. duPont Hospital for Children requests you to verify the fax number only once from your medical practice or institution and to assure that all faxes regarding patient information are received in a secure location in accordance with HIPAA regulations.

Please complete this Facsimile Verification Form and fax back to 302.651.6795.
If you have any questions regarding this form please contact Susan Kirwin, Assistant Director of The Molecular Diagnostics Laboratory, at 302.651.6777.

This is a confidential document that is being sent from a fax machine in a secure location. This fax is covered by the Electronic Communications Privacy Act 18 U.S.C. 2510-521. The information contained in this fax is considered privileged, is otherwise confidential and is intended only for the use of the individual or entity named above. Dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error please notify us immediately by telephone, and return the original message to us at the above address via the U.S. Postal Service.
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<th>Credit Card Billing Information</th>
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For Direct Patient Billing

Prepayment for the testing services is required prior to beginning our testing. Please complete this form and include this paperwork with the shipment of the patient sample.

Billing questions can be addressed to: Denise Axsmith
Senior Budget/Financial Analyst
Nemours/A.I. duPont Hospital for Children
daxsmith@nemours.org
Phone: 302.651.6802
Fax: 302.651.6881