

## Fluorescence in-situ Hybridization (FISH) MYCN Gene Amplification

Specimen :  
Clinical Indication :  
Result :  
Interpretation :

Interphase nuclei analyzed	Normal nuclei 2 green 2 orange signals	Abnormal nuclei 2 orange > 4 green signals
200		

**Note:** Sample is positive if ratio of MYCN and 2q11 is > 2.0

## PHOTO

**Method:** FISH analysis performed on 200 Interphase nuclei.

**Probe:** SPEC MYCN/2q11 Dual Colour Probe

**Comments:** The MYCN gene, which encodes the n-myc protein, is a proto-oncogene with highest expression in the developing brain and insignificant expression in normal adult tissues. Gene amplification is detected in approximately 20% of neuroblastoma and a variety of other solid tumors including 5% medulloblastoma, glioblastoma multiform, 25% alveolar rhabdomyosarcoma, 15-20% small-cell lung cancer, 40% neuroendocrine prostate cancer, and 5% prostate adenocarcinoma. MYCN amplifications are associated with aggressive disease and/or poor outcome. Detection can be useful to stratify patients for aggressive treatment.