



<u>Procedure</u>	<u>Result</u>	<u>Units</u>	<u>Ref Interval</u>	<u>Accession</u>	<u>Collected</u>	<u>Received</u>	<u>Reported/</u> <u>Verified</u>
RET FISH Result	Positive f			18-360-900050	26-Dec-18 13:40:00	26-Dec-18 13:40:00	26-Dec-18 13:49:32
RET FISH Reference Number	S18-123			18-360-900050	26-Dec-18 13:40:00	26-Dec-18 13:40:00	26-Dec-18 13:49:32
RET FISH Source	Tissue			18-360-900050	26-Dec-18 13:40:00	26-Dec-18 13:40:00	26-Dec-18 13:49:32
Total Cell Count	100			18-360-900050	26-Dec-18 13:40:00	26-Dec-18 13:40:00	26-Dec-18 13:49:32
Scoring Method	Manual			18-360-900050	26-Dec-18 13:40:00	26-Dec-18 13:40:00	26-Dec-18 13:49:32

26-Dec-18 13:40:00 RET FISH Result:

This result has been reviewed and approved by Georgios Deftereos, M.D. Controls performed as expected.

26-Dec-18 13:40:00 RET FISH Result:

METHODOLOGY AND INTERPRETIVE DATA:

Fluorescence in situ hybridization (FISH) analysis was performed on a section from a paraffin embedded tissue block using differentially labeled fluorescent probes targeting the upstream (5') and downstream (3') flanking regions of the RET gene (Abbott Molecular). Cells were evaluated from regions of tumor identified on histopathologic review of a matching hematoxylin and eosin stained section. Controls performed appropriately.

This test is designed to detect rearrangements involving the RET gene, but it does not identify a specific partner gene. An abnormal signal pattern seen in 15 percent or more of the evaluated tumor cells is considered a positive result.

RET rearrangements occur in approximately 1-2 percent of lung adenocarcinomas and 10-20 percent of papillary thyroid carcinomas. Detection of RET rearrangements may be useful for diagnostic classification of disease and for predicting tumor response to targeted therapy.

References:

* Abnormal, # = Corrected, C = Critical, f = Footnote, H = High, L = Low, t = Interpretive Text, @ = Reference Lab

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1. Takeuchi K et al. RET, ROS1 and ALK fusions in lung cancer. Nat Med. 18(3):378-381, 2012.
 2. Wang R et al. RET fusions define a unique molecular and clinicopathologic subtype of non-small-cell lung cancer. J Clin Oncol. 30(35):4352-9, 2012.
 3. Nikiforov Y. Molecular diagnostics of thyroid tumors. Archives of pathology & laboratory medicine. 135(5):569-77, 2011.

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement A: aruplab.com/CS.