



*Note: In some cases of AML with APL-like features *PML::RARA* is not observed and alternate rearrangements involving the *RARA* locus can occur.

Examples: *ZBTB16::RARA*; *NUMA1::RARA*; *NPM1::RARA*; *STAT5B::RARA*

RT-PCR for *PML::RARA* will not detect rare alternate *RARA* fusions in such cases. FISH can identify these rare alternate *RARA* rearrangements but will not be able to identify the partner gene. Neither PCR or FISH can identify rare APL with rearrangements involving other retinoic acid receptor genes such as *RARB* and *RARG*.

Geoffroy MC, de Thé H. Classic and Variants APLs, as Viewed from a Therapy Response. *Cancers (Basel)*. 2020;12(4):967