Fusion/Rearrangement Detection with FoundationOne®Liquid CDx

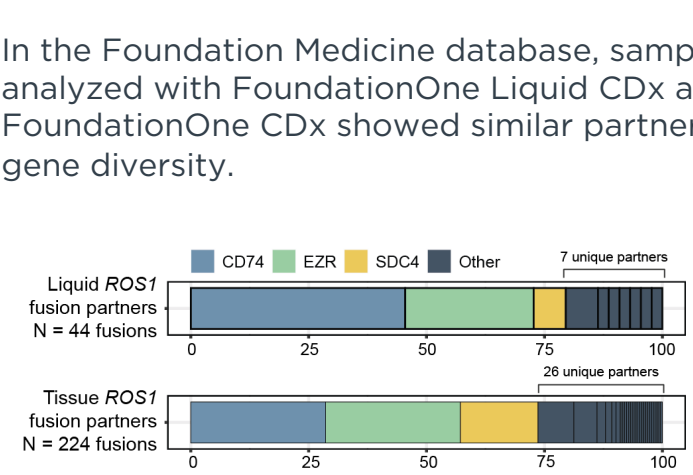
FOUNDATION MEDICINE®

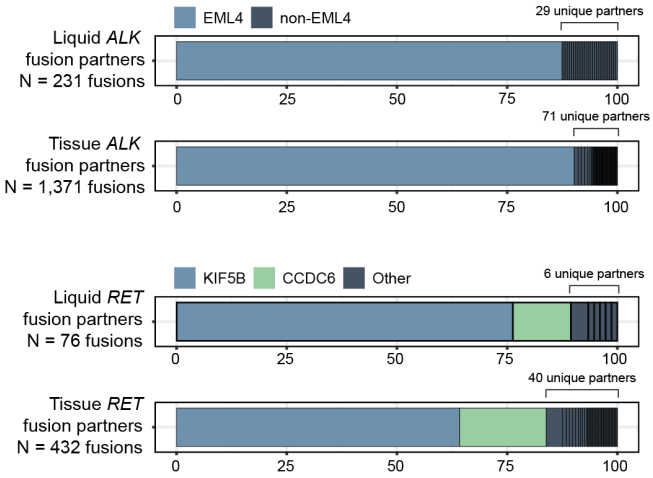
Although clinical literature has reported poor fusion detection with other liquid biopsy assays, FoundationOne Liquid CDx fusion detection is robust across solid tumors, with ~90% concordance with FoundationOne®CDx when ctDNA tumor fraction is high.

Non-Small Cell Lung Cancer

FoundationOne Liquid CDx Detects Diverse Fusions[1]

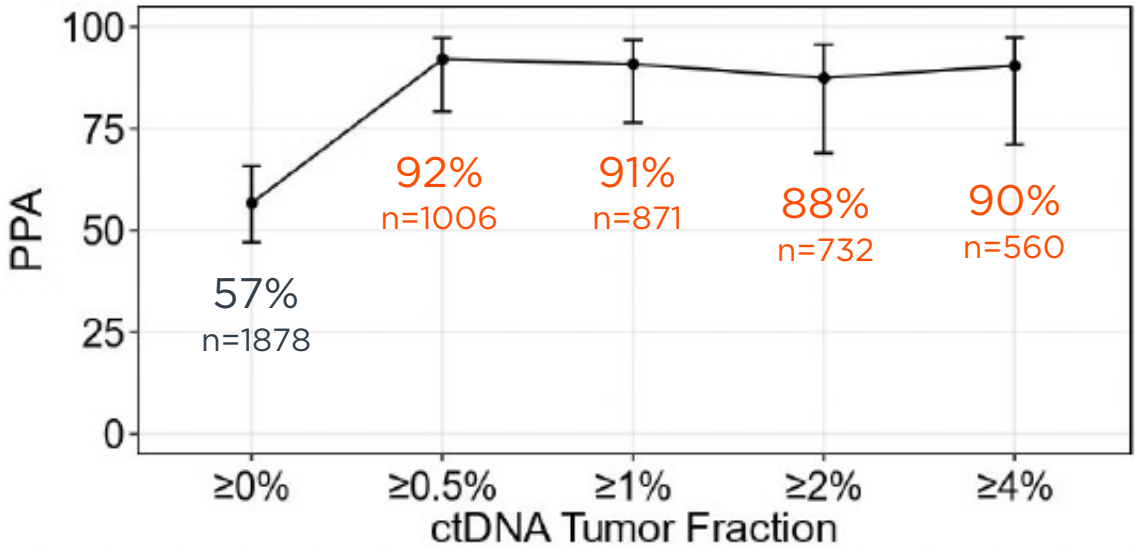
In the Foundation Medicine database, samples analyzed with FoundationOne Liquid CDx and FoundationOne CDx showed similar partner gene diversity.





FoundationOne Liquid CDx and FoundationOne CDx Tissue Fusion Detection Concordance is High[1]

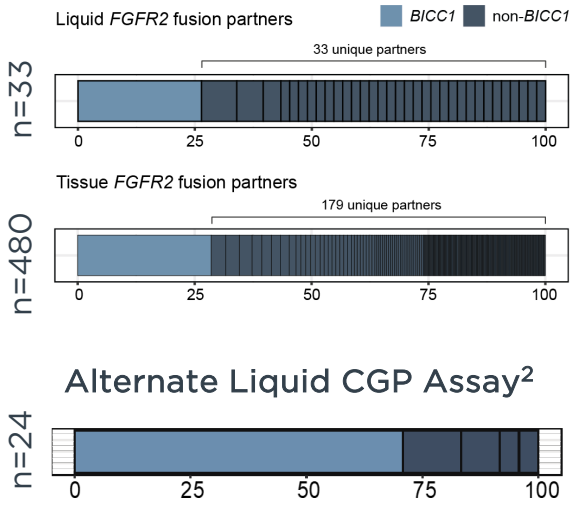
For patients with paired FoundationOne CDx and FoundationOne Liquid CDx results, concordance (positive percentage agreement, PPA) for *ALK/RET/ROS1* fusion detection was ~90% when ctDNA tumor fraction (ctDNA TF) ≥1%.



FoundationOne Liquid CDx Detects Diverse FGFR2 Fusions

FoundationOne Liquid CDx analysis recapitulated the diversity of partner genes shown with FoundationOne CDx tissue CGP.[1]

An alternate assay detected fewer diverse partner genes, indicating **potential bias towards common partner detection.**[2]



FoundationOne Liquid CDx and FoundationOne CDx Tissue Rearrangement Concordance is High

In the Foundation Medicine database, *FGFR2* rearrangement (RE) frequency in liquid samples with ctDNA TF ≥1% is similar to that of tissue biopsy.[1]

An alternate assay reported lower frequencies of *FGFR2* REs in liquid vs. tissue biopsy.[2]

	Foundation Medicine[1]	Alternate Assay[2]
Liquid biopsy	5.3% (overall) 8.4% (ctDNA TF ≥1%)	1.4%
Tissue biopsy	7.6%	4.3%

Fusion/rearrangement detection capabilities vary among assays.
Want to learn more? Contact Medical Affairs at med.info@foundationmedicine.com.

References
1. Kasi PM, et al. *Clin Cancer Res* 2024;30(4):836-848. 2. Berchuck JE, et al. *Ann Oncol.* 2022;33(12):1269-1283.

Abbreviations
CGP = comprehensive genomic profiling, ctDNA = circulating tumor DNA

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