**Supplementary Table 1.** Excluded studies

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| --- | --- | --- |
| **Study** | **Author** | **Reason** |
| Comprehensive RNA analysis of CSF reveals a role for CEACAM6 in lung cancer leptomeningeal metastases | Li et al. 2021 | Not enough mutation data |
| Detection of Leptomeningeal Disease Using Cell-Free DNA From Cerebrospinal Fluid | White et al. 2021 | Not enough mutation data |
| Tumor DNA Mutations From Intraparenchymal Brain Metastases Are Detectable in CSF | Cheok et al. 2021 | Not enough mutation data |
| Cancer cells deploy lipocalin-2 to collect limiting iron in leptomeningeal metastasis | Chi et al. 2020 | Not enough mutation data |
| Circulating Tumor DNA Analysis for Patients with Oncogene-Addicted NSCLC With Isolated Central Nervous System Progression | Aldea et al. 2020 | Tumor cells not derived from CFS |
| Biopsy-free circulating tumor DNA assay identifies actionable mutations in lung cancer | Villaflor et al. 2016 | Tumor cells not derived from CFS |

CSF, cerebrospinal fluid

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