Singapore General Hospital
SingHealth

SOMATIC SOLID TUMOUR PANEL (COLON)

Synonym(s): SSTP (COLON)

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Lab Section Category	**Molecular Diagnostics - Oncology** Click here to find out more about the **write-up (/clinical-departments-centers/pathology/pathology-handbook/lab-discipline-special-instructions/pages/moleculardiagnostics.aspx).**

Indications	The Somatic Solid Tumour Panel (SSTP) multiplex PCR assay offered by the Translational Pathology Centre can be used to concurrently screen for gene alterations in mutational hotspots and targeted regions in 17 genes* frequently implicated in colon and lung cancer, where tyrosine kinase receptor-directed therapy has been shown to be efficacious. The selection of patients using molecular profiling greatly enhances the outcomes of treatment. In other cancer types treatment with targeted therapy is also guided by the presence or absence of certain mutations. Prior screening of tumours for such mutations would therefore allow physicians to make an informed decision on the best treatment regimen for each patient. This test is suitable for patients following cancer treatment and for monitoring of response to treatment. * Genes covered in the panel: ALK, APC, BRAF, CTNNB1, EGFR, ERBB2, ERBB4, KIT, KRAS, NRAS, PDGFRA, PIK3CA, PIK3R1, PTEN, RNF43, TP53 and ZNRF3.
Specimen Required	Paraffin embedded tissue blocks can be sent to the Histopathology Section. Alternatively, unstained slides can be sent to the Histopathology Section. At least 8 sections of 8 µm thickness of tumour tissue (≥ 5 mm by 5 mm) should be prepared on uncoated slides, and sent with one H&E slide, 4 µm thick with a coverslip as a reference slide. For smaller biopsies (<5 mm by 5 mm), at least 12 sections of 6 µm thickness is required. Tumour content must be indicated and preferably at least 30-50% (samples with less than 10% tumour will be rejected). DNA can only be accepted when FFPE tissue is not available. The laboratory only accepts DNA that is extracted or isolated in a CAP-accredited or CLIA-certified laboratory. Please call the lab for the requirements.
Method	In-house developed multiplexed polymerase-chain reaction (PCR) in five primer pools for the detection of gene variants in hotspots and targeted regions of 17 known genes associated with solid/epithelial cancers.
Test Result	Gene variants detected

Turnaround Time	10 working days. Up to 15 working days if repeat testing is required due to specimen quality issues.
Day(s) Test Set up	Tuesdays

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