

## Detection of Cancer Biomarker with Surface-Enhanced Raman Scattering Biosensor

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Surface-enhanced Raman scattering (SERS) have a promising potential as an analytical technique for measurement of analytes in real-world complex samples. However, the Raman scattering is inefficient due to the small scattering cross-section of molecules. This work has shows a facile and efficient approach to enhanced the SERS signal. The gold nano-star@Raman-reporter@silica sandwich nanoparticles are used as the SERS probe. When the analyte is present in the assay, the SERS probes are coupled to a gold triangle nano-array. As a result, a three-dimensional (3D) plasmonic nanostructure is formed to enhance the electromagnetic field, leading to enhancement in the SERS signal. Such a SERS sensor has been used for detection of cancer biomarkers in blood plasma

### References:

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