

## SERUM TUMOR MARKERS

**Tumor marker** is a substance that emerges or is increased in concentration as a consequence of malignant disease. Sometimes, tumor markers are organ or tissue specific, and often several markers are associated with certain malignant disease.

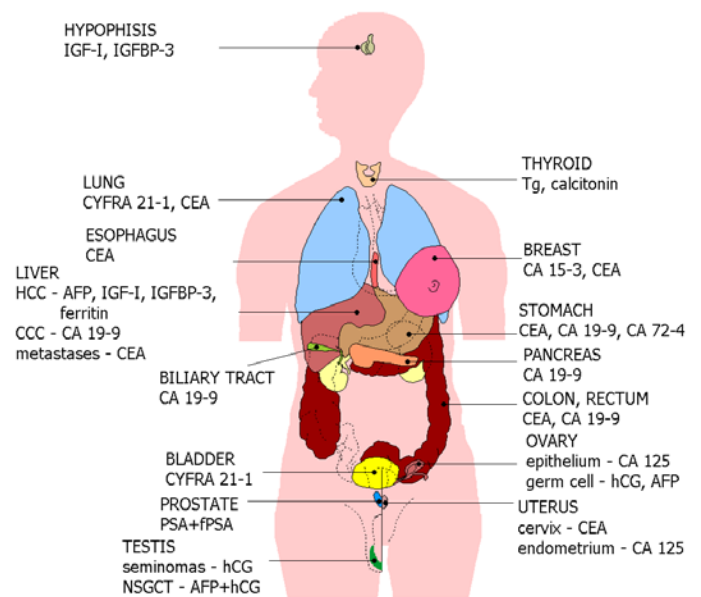
### An ideal tumor marker should:

- Be cancer or organ specific
- Be sensitive to detect presence of a cancer in early stage
- Reflect tumor size and/or activity in order to indicate cancer stage, aid prognosis and therapy efficiency

### Tumor markers determination in serum has multiple roles:

- screening and early diagnosis of malignant diseases
- aid in diagnosis, disease staging, and prognosis
- predicting response to specific therapy and selecting adequate anti-tumor protocol
- treatment monitoring
- monitoring the course of disease (early detection of disease recurrence)

### Tumor markers characteristic for cancers of certain organs:



### How are serum tumor markers measured?

Serum tumor markers are measured in serum or plasma, but can be also determined in other body fluids, such as pleural effusion, or urine. Each tumor marker is determined using specific immunoassay, based on use of characteristic monoclonal antibodies. Since there are many different methods for a single tumor marker, it is recommended that serial determinations of tumor marker should be done using same method.

### New trends in serum tumor marker determination

Multiple markers - protein and genetic, tumor cells, marker kinetics, proteomic profiling.

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ISO 9001; ISO/IEC 17025  
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