

TUMOUR MARKER LABORATORY
(Affiliated with the BC Cancer Agency)

PHSA Laboratories – Central Processing & Receiving
655 West 12th Avenue Vancouver BC V5R 4R4
Phone: 604-707-2819 Fax: 604-707-2407

Hours of Operation: Monday to Friday, 0800 to 1630 hours (excluding statutory holidays)

Medical Lead: Dr. Junyan Shi 604-875-4578 High Volume Serology Team Lead: 604-707-2828

ASSAY INFORMATION FOR REFERRING LABORATORIES (updated 31 August, 2021)

Test	Primary Use	Secondary Use	Specimen	Primary Collection Tube	Preanalytical Sample Handling	Testing Frequency	Assay Method	Reference Range
AFP Alpha Fetoprotein	Hepatoma, Non-Seminomas of Testes	Liver metastases	1 mL aliquot serum	Gold or Red top	Should arrive in lab within 48 hrs. Prior to shipping, store refrigerated (up to 48 hours) or frozen (if testing will be delayed >48 hrs).	Daily as received	Siemens CENTAUR (chemi-luminescence immunoassay)	≤8 µg/L
B2M Beta-2-Microglobulin	Lympho-proliferative diseases eg: Multiple Myeloma, Lymphoma, Leukemia, AIDS Lymphadenopathy	Inflammatory disorders eg: Arthritis, SLE, Crohn's; renal glomeruli dysfunction; renal transplant monitoring	1 mL aliquot serum	Gold, Red top	Should arrive in lab within 48 hrs. Prior to shipping, store refrigerated (up to 24 hours) or frozen (if testing will be delayed >24 hrs).	Weekly	Siemens Immulite (chemi-luminescent immunometric assay)	Serum: <2.2 mg/L
CA 125 Cancer Antigen 125	Ca Ovary	Ca Uterus, Pancreas, Lung, Breast, Stomach, Hepatoma	1 mL aliquot serum	Gold or Red top	Should arrive in lab within 48 hrs. Prior to shipping, store refrigerated (up to 24 hours) or frozen (if testing will be delayed >24 hrs).	Daily as received	Siemens CENTAUR (chemi-luminescence immunoassay)	≤32 kU/L
CA 15-3 Cancer Antigen 15-3	Ca Breast	Ca Lung	1 mL aliquot serum	Gold or Red top	Should arrive in lab within 48 hrs. Prior to shipping, store refrigerated (up to 24 hours) or frozen (if testing will be delayed >24 hrs).	Daily as received	Siemens CENTAUR (chemi-luminescence immunoassay)	≤32 kU/L
CA 19-9 Carbohydrate Antigen 19-9	Ca Pancreas, Stomach, Biliary Tract, Colorectum	Ca Liver, Bronchus, Uterus, Breast, Ovary (mucinous)	1 mL aliquot serum	Gold or Red top	Should arrive in lab within 48 hrs. Prior to shipping, store refrigerated (up to 48 hours) or frozen (if testing will be delayed >48 hrs).	Daily as received	Siemens CENTAUR (chemi-luminescence immunoassay)	≤35 kU/L

Test	Primary Use	Secondary Use	Specimen	Primary Collection Tube	Preanalytical Sample Handling	Testing Frequency	Assay Method	Reference Range
CEA Carcinogenic Embryonic Antigen	Ca Colorectal	Ca Breast, Lung	1 mL aliquot serum	Gold or Red top	Should arrive in lab within 48 hrs. Prior to shipping, store refrigerated (up to 24 hours) or frozen (if testing will be delayed >24 hrs).	Daily as received	Siemens CENTAUR (chemi-luminescence immunoassay)	$\leq 5 \mu\text{g/L}$
CGA Chromogranin A	Neuroendocrine tumours including Carcinoid, Pheochromocytoma, Neuroblastoma, islet cell tumours	Small Cell Ca Lung, Ca Prostate with normal PSA	1 mL aliquot serum	Gold or Red top	Should arrive in lab within 48 hrs. Prior to shipping, store refrigerated (up to 7 days) or frozen.	Weekly	Cisbio ELISA	$< 94 \mu\text{g/L}$
GSTN Gastrin	Zollinger-Ellison tumours (gastrinomas) in patients with gastric acid hypersecretion.	Disorders associated with abnormal gastrin production	1 mL aliquot serum	Gold or Red top	Should be separated and frozen within 1 hour of collection. Ship frozen.	Weekly	Siemens Immulite (chemi-luminescent immunometric assay)	$< 115 \text{ ng/L}$
HCG Total Human Chorionic Gonadotropin	Samples referred to Vancouver General Hospital							
IL2R Soluble Interleukin-2 Receptor	Hemophagocytic lymphohistiocytosis syndrome	Neoplastic diseases, Autoimmune diseases, Organ allograft rejection	1 mL aliquot serum	Gold or Red top	Should be separated and frozen within 1 hour of collection. Ship frozen.	Weekly/Stat with Medical Lead approval	Siemens Immulite (chemi-luminescent immunometric assay)	$\leq 19 \text{ yrs:}$ No reference range $> 19 \text{ yrs:}$ 241-846 U/mL
PSA-Free Prostate Specific Antigen (protein-unbound fraction)	Ca Prostate, BPH		1 mL aliquot serum	Gold or Red top	Obtain sample prior to procedures involving manipulation of the prostate. Should arrive in lab within 48 hrs. Prior to shipping, store refrigerated (up to 5 days) or frozen.	Daily as received	Siemens Centaur (chemi-luminescent immunometric assay)	Variable

Test	Primary Use	Secondary Use	Specimen	Primary Collection Tube	Preanalytical Sample Handling	Testing Frequency	Assay Method	Reference Range
<u>PSA-Total</u> Prostate Specific Antigen (protein-bound and -unbound fractions)	Ca Prostate, BPH		1 mL aliquot serum	Gold or Red top	Obtain sample prior to procedures involving manipulation of the prostate. Should arrive in lab within 48 hrs. Prior to shipping, store refrigerated (up to 5 days) or frozen.	Daily as received	Siemens CENTAUR (chemi-luminescence immunoassay)	<50 yrs: ≤2.5 µg/L 50-59 yrs: ≤3.5 µg/L 60-69 yrs: ≤4.5 µg/L ≥70 yrs: ≤6.5 µg/L
<u>SCC</u> Squamous Cell Carcinoma	Ca Cervix, Uterus	Ca Anus, Vagina, Vulva, Esophagus, Skin	1 mL aliquot serum	Gold or Red top	Should arrive in lab within 48 hrs. Prior to shipping, store refrigerated (up to 7 days) or frozen.	Daily as received	Abbott ARCHITECT (chemi-luminescence immunoassay)	≤1.5 µg/L
<u>Testosterone</u>	Ca Prostate	Endocrine disorders	1 mL aliquot serum	Gold or Red top	Should arrive in lab within 48 hrs. Prior to shipping, store refrigerated (up to 7 days) or frozen.	Daily as received	Siemens CENTAUR (chemi-luminescence immunoassay)	Males: <50 yrs: 8.6-29 nM ≥50 yrs: 6.7-26 nM Females: <50 yrs: 0.3-1.7 nM ≥50 yrs: 0.1-1.7 nM