The role of alkaline phosphatase isoenzymes as tumor markers for testicular germ cell tumors.


The role of serum alkaline phosphatase as a tumor marker for testicular germ cell disease was investigated in 26 patients with testicular seminoma and 13 with nonseminomatous germ cell testis tumors. Placental alkaline phosphatase-like enzyme was elevated in 50% of the stage I seminoma patients and in all patients with stages II to III disease. In addition, liver (tissue unspecific) alkaline phosphatase was elevated in 10 and 83% of the patients, respectively. Lactic dehydrogenase and β-human chorionic gonadotropin (β-hCG) were detected in 50 to 60% of the patients with stage I seminoma.

Studies on anti-von Willebrand factor (vWF) monoclonal antibody NMC-4, which inhibits both ristocetin- and botrocetin-induced vWF binding to platelet glycoprotein Ib.


Anti-von Willebrand factor (vWF) monoclonal antibody NMC-4 completely inhibited vWF binding to platelet glycoprotein (GP) Ib induced by either ristocetin or botrocetin at an IgG concentration of ~10 μg/mL, and also blocked binding of asialo-vWF to GP Ib. Amino acid residues 512 through 673 of the vWF subunit are involved in botrocetin-induced vWF binding.

Isolation and chemical characterization of two structurally and functionally distinct forms of botrocetin, the platelet coagglutinin isolated from the venom of Bothrops jararaca.


Two distinct forms of botrocetin, the von Willebrand factor (vWF)-dependent platelet coagglutinin isolated from the snake venom of Bothrops jararaca, were purified and characterized structurally and functionally. The apparent molecular mass of the one-chain botrocetin was 28 kDa before and 32 kDa after reduction of disulfide bonds, while that of the two-chain botrocetin was 27 kDa before and 15/14.5 kDa after reduction. On a weight basis, the two-chain botrocetin was 34 times more active than the one-chain form in promoting vWF binding to platelets.