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# Amifostine

National Cancer Institute

## Source

National Cancer Institute. *Amifostine*. NCI Thesaurus. Code C488.

The trihydrate form of a phosphorylated aminosulfhydryl compound. After dephosphorylation of amifostine by alkaline phosphatase to an active free sulfhydryl (thiol) metabolite, the thiol metabolite binds to and detoxifies cytotoxic platinum-containing metabolites of cisplatin and scavenges free radicals induced by cisplatin and ionizing radiation. The elevated activity of this agent in normal tissues results from both the relative abundance of alkaline phosphatase in normal tissues and the greater vascularity of normal tissues compared to tumor tissues.