

[Open Peer Review on Qeios](#)

# Carbon C 11 Sepantronium Bromide

National Cancer Institute

## Source

National Cancer Institute. *Carbon C 11 Sepantronium Bromide*. NCI Thesaurus. Code C116790.

A radiotracer composed of the bromide salt form of sepantronium, a small-molecule survivin antagonist and proapoptotic agent, labeled with the radionuclide carbon C 11, with potential positron emission tomography (PET) imaging activity. Upon administration, sepantronium is selectively taken up by tumor cells, binds to the survivin promoter and inhibits the transcription of survivin, which results in decreased survivin expression. Upon PET imaging, the tissue distribution of sepantronium and its tumor uptake can be assessed. Survivin, a member of the inhibitor of apoptosis (IAP) gene family, is overexpressed in a variety of human cancers; its expression in tumors is associated with a more aggressive phenotype, increased cancer cell proliferation, shorter survival times, and a decreased response to chemotherapy.