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# Iodine I 131 TM-601

National Cancer Institute

## Source

National Cancer Institute. *Iodine I 131 TM-601*. NCI Thesaurus. Code C48263.

An iodine 131 (I 131) radioconjugate of the synthetic chlorotoxin (CTX) TM-601 with potential antiangiogenic and antineoplastic activities. CTX is a 36 amino acid neurotoxin found in the venom of the giant yellow scorpion *Leiurus quinquestriatus* that preferentially binds malignant cells of neuroectodermal origin. The recombinant version of this peptide, TM-601, is expressed in and purified from *E. coli* and then covalently linked to I 131 to produce 131I-TM-601. 131I-TM-601 binds to tumor cells of neuroectodermal origin and is internalized; administered once, it may be used as a radioimaging agent; repeated administration may result in a tumor-specific, cumulative radiocytotoxic dose of I 131. In addition, TM-601 alone, similar to native CTX, may inhibit angiogenesis due to its ability to bind to and inhibit matrix metalloproteinase 2 (MMP-2), an endopeptidase involved in tissue remodeling processes such as angiogenesis.