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Indium In-111 Pentetreotide

National Cancer Institute

Source

National Cancer Institute. *Indium In-111 Pentetreotide*. NCI Thesaurus. Code C1672.

An indium 111 radioconjugate of pentetreotide, the diethylenetriaminopentaacetic (DTPA) conjugate of the human hormone somatostatin peptide analogue (octreotide), used for radioimaging neuroendocrine tumor cells. The pentetreotide moiety of indium In 111 pentetreotide binds to somatostatin receptors (SSTRs), especially type 2 receptors, present on the cell membranes of many types of neuroendocrine tumor cells. Upon binding and internalization, this radioconjugate allows for specific imaging of neuroendocrine tumors that overexpress somatostatin using scintigraphic imaging techniques. In addition, high dose indium In 111 pentetreotide may specifically deliver a cytotoxic dose of gamma radiation to SSTR-positive cells thereby killing SSTR-expressing tumor cells.