mammalian gut and distributed throughout the central nervous system. Its highest concentration is in the hypothalamus.

The many pharmacological actions of neurotensin include induction of hypotension, increased vascular permeability, hyperglycemia, increased intestinal motility, and inhibition of gastric acid secretion. Its effects on insulin, glucagon, and SS secretion appear to depend on glucose concentration. Its effects on prolactin, growth hormone, and gonadotropin secretion seem to depend on whether it is administered intravenously or intracerebrally.

The sequence of isolated endogenous neurotensin was confirmed by synthesizing the tridecapeptide using solid-phase techniques. The data obtained from the synthesis demonstrates that the purified synthetic product is chemically and biologically indistinguishable from the isolated hypothalamic substance.

The smallest sequence possessing most of the neurotensin spectrum of activities as well as its high potency is the hexapeptide C-terminus of NT. A series of analogues has been synthesized. in which each amino acid is substituted by its corresponding D-amino acid. This series yielded analogues with biological activities ranging from 0 to 1000% of the parent compound.