

ETN1

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Abstract

The protein encoded by this gene is proteolytically processed to release a secreted peptide termed endothelin 1. This peptide is a potent vasoconstrictor and is produced by vascular endothelial cells. Endothelin 1 also can affect the central nervous system. Two transcript variants encoding different isoforms have been found for this gene.

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Endothelin is the most powerful vasoconstrictor. It exists not only in the vascular endothelium, but also in various tissues and cells. It is an important factor in regulating cardiovascular function and maintains basal vascular tone and heart, and plays an important role in the vascular system homeostasis. The endothelin system includes three peptide ligands (ETN1, ETN2, ETN3) and two G protein-coupled receptors (ETRA, ETRB).

Endothelin-1(ETN1) is rich in biological activity including potent regulation of vasoconstriction, participation in vascular remodeling, angiogenesis and extracellular matrix synthesis particularly in cardiovascular system tissues. And it is an important regulation of cardiovascular activity. ETN1 exerts its biological effects mainly through specific binding to ligands.