

# Calcitonin Gene-Related Peptide (CGRP)

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### Abstract :

Calcitonin gene-related peptide (CGRP) is a 37 amino acid vasoactive neuropeptide that is widely distributed in central and peripheral nervous systems in mammals. CGRP was discovered in 1982 by molecular cloning of calcitonin (CT) gene. CGRP-specific mRNA appears to predominate in the hypothalamus while CT mRNA predominates in the thyroid. CGRP has an amphiphilic  $\alpha$ -helical secondary structure in the amino acid sequence between 8-25. Half-life of CGRP in mammalian plasma is about 10 min. CGRP is immunohistochemically co-localized with substance P in cardiovascular system and it has similar role to that of substance P. CGRP is secreted by primary afferents and causes primary hyperalgesia, and its expression increases in dorsal horn under sensitization conditions. CGRP plays important role in blood pressure system. [Nature and Science. 2004;2(3):41-47].

### Key Word :

Calcitonin; calcitonin gene-related peptide; cardiovascular; substance P; neuropeptide

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