

专论与综述

KRAB型锌指蛋白(KZNF)的研究进展

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摘要

KRAB型锌指蛋白是哺乳动物中最大的转录调控因子家族, 它的多数成员在基因组上成簇分布。其结构特征是N端含有KRAB结构域, C端含有多个C2H2型锌指结构。KRAB结构域为一蛋白质-蛋白质相互作用区, 可以与多种协同转录抑制因子和转录因子结合, 使KRAB型锌指蛋白作为转录因子和/或转录调控因子发挥依赖于DNA结合的转录抑制功能, 在胚胎发育、细胞分化、细胞转化及细胞周期的调控中发挥重要功能。

关键词 [KRAB](#) [KZNF](#) [C2H2型锌指](#) [KAP-1](#) [转录抑制](#)

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Progress in the Study of KRAB Zinc Finger Protein

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Abstract

<P>The zinc finger proteins containing the Kruppel-associated box domain (KRAB) constitute the largest single family of transcriptional regulators in mammals. Many genes encoding members of this family are arranged in clusters. KRAB-containing proteins are characterized by the presence of 4 and over 30 C2H2 zinc-finger motifs and a KRAB domain near the amino terminus of the protein. KRAB domain behaving as a protein-protein interaction domain could bind to corepressor proteins and/or transcription factors, and that the KRAB-containing proteins could act as a repressor or corepressor and play a key role in transcriptional repression. Members of the family are involved in embryonic development, cell differentiation, cell proliferation, apoptosis, neoplastic transformation and cell cycle regulation.</P>

Key words [KRAB](#) [KZNF](#) [C2H2 zinc finger](#) [KAP-1](#) [transcriptional repression](#)

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