

## Sp1- and Kruppel-like transcription factors



Sp1-like proteins and Kruppel-like factors (KLFs) are highly related zinc-finger proteins that are important components of the eukaryotic cellular transcriptional machinery. By regulating the expression of a large number of genes that have GC-rich promoters, Sp1-like/KLF transcription regulators may take part in virtually all facets of cellular function, including cell proliferation, apoptosis, differentiation, and neoplastic transformation. Individual members of the Sp1-like/KLF family can function as activators or repressors depending on which promoter they bind and the coregulators with which they interact. A long-standing research aim has been to define the mechanisms by which Sp1-like factors and KLFs regulate gene expression and cellular function in a cell- and promoter-specific manner. Most members of this family have been identified in mammals, with at least 21 Sp1-like/KLF proteins encoded in the human genome, and members are also found in frogs, worms and flies. Sp1-like/KLF proteins have highly conserved carboxy-terminal zinc-finger domains that function in DNA binding. The amino terminus, containing the transcription activation domain, can vary significantly between family members.

**Sp1- and Kruppel-like transcription factors - NCBI - NIH** Transcription factor Sp1, also known as specificity protein 1\* is a protein that in humans is encoded by the SP1 gene. Contents. [hide]. 1 Function 2 Structure **Embryonic Expression of the Chicken Kruppel-like (KLF) - NCBI - NIH** The Kruppel-like transcription factors are zinc finger proteins that activate and The closely related Gli/Glis gene family and the SP1 and SP6 genes also code **Sp/Kruppel-like transcription factors are essential for the expression** In molecular genetics, the Kruppel-like family of transcription factors (KLFs) are a set of zinc The transcription factors SP1 to SP9 are similar to the KLFs, but their zinc fingers are closer to the middle of the protein rather than at the C-terminus. **The Biology of Kruppel-like Factors - Google Books Result** Feb 3, 2003 Sp1-like proteins and Kruppel-like factors (KLFs) are highly related zinc-finger proteins that are important components of the eukaryotic cellular **TGF $\beta$ -regulated Gene Expression by Smads and Sp1/KLF-like** Sp1/KLF-(Kruppel-like factors) like transcription factors. (KLF10 and KLF11) which play remarkable roles in TGF $\beta$  mediated cell growth control and differentiation **Kaczynski J, Cook T, Urrutia R.. Sp1- and Kruppel-like transcription** Aug 1, 2000 Gut-enriched Kruppel-like factor (GKLF or KLF4) is a newly identified Sp1 Transcription Factor/physiology\* Transcription Factors/genetics **TGF $\beta$  regulated gene expression by Smads and**

**Sp1/KLF-like** The transcription factor SP1 contains three Kruppel-like zinc fingers. Recently, several related proteins, including erythroid, lung and gut-enriched Kruppel-like AbstractThe Kruppel-like factor (KLF) family is a recently highlighted group of zinc finger transcription day.14 KLFs are also very similar to Sp1 and its family. **Erythroid Kruppel-Like Factor Directly Activates the Basic Kruppel** Dec 23, 2016 Sp1 is the founding member of the Specificity protein/Kruppel-like factor (Sp/KLF) family of transcription factors, which currently has a total of 26 **Kruppel-Like Transcription Factors in the Nervous System: Novel** The promoter-specific transcription factor Sp1 binds to upstream sequences in the SV40 Sp1 and kruppel-like factor family of transcription factors in cell growth **Sp1- and Kruppel-like transcription factors SpringerLink** Sp1 and Kru?ppel-Like Factor Family of. Transcription Factors in Cell Growth. Regulation and Cancer. ADRIAN R. BLACK,1\* JENNIFER D. BLACK,1. AND JANE **Quantitative Proteome Analysis: Methods and Applications - Google Books Result** Kruppel-like transcription factors (Klfs) modulate fundamental cell processes. Sp1-like proteins and Kruppel-like factors (Klfs) each have three C2H2 zinc **Kruppel-like factors - Wikipedia** Kruppel-like factors (KLFs), of which there are currently 17 known protein members, belong to the specificity protein. (Sp) family of transcription factors and are characterized by of nine members (Sp19), while the KLF family consists of 17. **The Role of the Ubiquitously Expressed Transcription Factor Sp1 in** Mar 29, 2017 Sp1-like proteins and Kruppel-like factors (KLFs) are highly related zinc-finger proteins that are important components of the eukaryotic cellular **PDF(232K) - Wiley Online Library** Aug 21, 2002 Sp/Kruppel-like transcription factors are essential for the expression of Sp1, Sp3, Sp4 or erythroid Kruppel-like factor (EKLF) specifically **Sp1 and kruppel-like factor family of transcription - NCBI - NIH** The Sp/KLF family contains at least twenty identified members which include Sp1-4 and numerous kruppel-like factors. Members of the family bind with varying **Role of Penaeus monodon Kruppel-like factor (PmKLF) in infection** Sp1-like and Kruppel-like factors (Sp1/KLFs) are a family of zinc-finger proteins that are important components of transcriptional machinery in eukaryotic cells. **REVIEW The emerging role of Kru?ppel-like factors in endocrine** Kruppel-like factor 4 (KLF4) is a transcription factor expressed in a wide variety of Sp1, Cdx2, and p53 positively regulate the KLF4 promoter, whereas KLF5 **Vascular Implications of the Kru?ppel-Like Family of Transcription** Feb 3, 2003 Sp1-like proteins and Kruppel-like factors (KLFs) are highly related zinc-finger proteins that are important components of the eukaryotic cellular **Gut-enriched Kruppel-like factor represses cyclin D1 promoter** Kruppel-like factor 4 is a zinc-finger transcription factor, and it was first identified in 1996. KLF4 is a member of the KLF family of transcription factors, which belongs to the relatively large family of SP1-like transcription factors. **Sp1- and Kruppel-like transcription factors. - NCBI - NIH** Quantitative real-time reverse transcription (RT)-PCR was performed with SYBR Green PCR Anti-Sp1 and anti-Sp3 antibodies were supplied by Santa Cruz **Role of Kruppel-like factor 4 in normal homeostasis, cancer, and** May 24, 2011 The Kruppel-like family of transcription factors (KLFs) have been widely .. It can bind to Sp1 sites in the promoters of at least 3 dopamine **Mammalian Kruppel-like transcription factors: more than just a pretty** Feb 3, 2003 Sp1-like proteins and Kruppel-like factors (KLFs) are highly related zinc-finger proteins that are important components of the eukaryotic cellular **Role of kruppel-like transcription factors in adipogenesis** Nov 8, 2012 The zinc-finger transcription factors of the kruppel-like factor family (KLF) are critical in many physiological and pathological processes **KLF4 - Wikipedia** Feb 3, 2003 Sp1-like proteins and Kruppel-like factors (KLFs) are highly related The amino terminus, containing the transcription activation domain, can **Cell-specific Transcription of Leukotriene C4Synthase Involves a Differential regulation of Kruppel-like factor family transcription factor** Sp1, for example, exhibits homology to Kruppel. Many other transcription factors containing the Kruppel motif have been identified. Studies indicate that they **The biology of the mammalian Kruppel-like family of transcription** gene expression by Smads and Sp1/KLF-like transcription factors in cancer. of TGFbeta-inducible Sp1/KLF-(Kruppel-like factors) like transcription factors **Sp1 transcription factor - Wikipedia** Mar 24, 2000 These findings indicate the involvement of Sp1 and an Inr in non-cell-specific regulation and a Kruppel-like transcription factor and Sp1 in the