KLF4

Kruppel-like factor 4 (KLF4; gut-enriched Krüppel-like factor or GKLF) 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.

KLF4 is involved in the regulation of proliferation, differentiation, apoptosis, and somatic cell reprogramming.

Evidence also suggests that KLF4 is a tumor suppressor in certain cancers, including Colorectal cancer.

It has three C2H2-zinc fingers at its carboxyl terminus that are closely related to another KLF, KLF2.

It has two nuclear localization sequences that signal it to localize to the nucleus.

In embryonic stem cells (ESCs), KLF4 has been demonstrated to be a good indicator of stem-like capacity. It is suggested that the same is true in mesenchymal stem cells (MSCs).

KLF4 meningioma

Studies have identified specific genetic and molecular alterations in meningiomas, including mutations in the NF2 gene, which is involved in regulating cell growth and division. Other genetic changes, such as mutations in the TRAF7 and KLF4 genes, have also been associated with different meningioma subtypes.