KLF

Krüppel-like factor

Krüppel-like factor (KLF) family members share a three C2H2 zinc finger DNA binding domain, and are involved in cell proliferation and differentiation control in normal as in pathological situations. KLFs can be deregulated in multiple cancers either by loss of heterozygosity (LOH), somatic mutation or transcriptional silencing by promoter hypermethylation.

KLF family member proteins play a critical role in the growth and metastasis of numerous tumor types, at least in part by regulating the expression of cell cycle genes. Globally, KLF4 and KLF6 are considered as tumor suppressor gene, whereas KLF5 promotes cell proliferation. Family members have different transcriptional properties and can modulate each other's activity by a variety of mechanisms. Since cells can express multiple KLFs, KLF transcription factors build likely a transcriptional network to control cell proliferation. Effects of changes in KLF factors are context-dependent and can appear contradictory, considering differences in the expression profile of family members in various cells. Last, KLF variants may antagonize the function of wild type proteins.

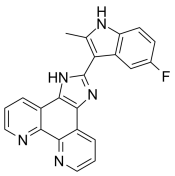
KLF Inhibitors & Activators

APTO-253

(LOR-253; LT-253)

Cat. No.: HY-16291

APTO-253 (LOR-253) is a small molecule that inhibits **c-Myc** expression, stabilizes G-quadruplex DNA, and induces cell cycle arrest and **apoptosis** in acute myeloid leukemia cells.

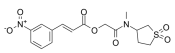


Purity: 98.15%
Clinical Data: Phase 1
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

CID 5951923

Cat. No.: HY-W011044

CID 5951923 is a potent inhibitor of **Krüppel-like factor 5 (KLF5)**, with an IC_{50} of 603 nM. CID 5951923 can inhibit proliferation of cancer cells in vitro.

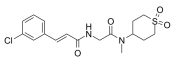


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

ML264

Cat. No.: HY-19994

ML264 is an antitumor agent that potently and selectively inhibits Krüppel-like factor five (**KLF5**) expression.

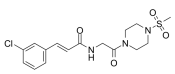


Purity: 99.58%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

SR15006

Cat. No.: HY-139691

SR15006 is a inhibitor of Krüppel-like factor 5 (KLF5) with an IC_{50} of 41.6 nM in DLD-1/pGL4.18hKLF5p cells).

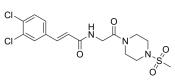


Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

SR18662

Cat. No.: HY-136530

SR18662 is a potent inhibitor of **Krüppel-like factor five (KLF5)** with an IC_{50} of 4.4 nM and an analogue of ML264 (HY-19994) with improved inhibitory potency against colorectal cancer cells. SR18662 can be used for the study of colorectal cancer.



Purity: 98.09%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg