

21-6009: Human Recombinant KLF4 protein His

Application : ELISA, WB
Gene ID : 223590252
Uniprot ID : O43474
Immunogen Information : KLF4 (1 a.a. – 513 a.a.) recombinant protein with an N-terminal His-PTD-NLS tag.

Description

Recombinant, 6xHis tag

Expression system: *E. coli*

KLF4 belongs to the Kruppel C2H2-type zinc-finger protein family with three C2H2-type zinc finger motifs. KLF4 is a transcription factor which acts as both an activator and repressor. This protein is a critical regulator which controls expression of key transcription factors during embryonic development and also in monocyte differentiation and macrophage polarization. This factor is one of the four original Yamanaka Factors and has been shown to be essential for maintaining pluripotency of embryonic stem cells. Along with SOX2, OCT4 and c-Myc, it can reprogram somatic or differentiated cells into induced pluripotent stem cells (iPSCs).

The recombinant protein is tagged with nuclear localization signal (NLS), a protein translocation domain (PTD, a poly arginine cell-penetrating peptide) and 6xHis at N-terminal region of the protein. The PTD will allow the entry of transcription factors through the plasma membrane and the NLS will allow entry of the proteins in to the nucleus to exert their biological actions.

Product Info

Amount : 50 µg / 100 µg
Purification : > 90%
Content : 100 µg purified protein at a concentration of 0.5 mg/ml
Storage condition : -20 Degree C. Stable for one year. Avoid repeated freeze-thaw.
Amino Acid : MAHHHHHMHADQLTEEQIAEFKEAFSLFDKDGDTITTKELGTVMRSLGQNPTAEALQDMINEVDA
DGNGTIDFPEFLTMMARKMKDTPDSEEEIREFRVFDKDGNGYISAAELRHVMTNLGEKLTDEEVDE
MIREADIDGGQVNYEEFVQMMTAKGSMVSDALLPSFSTFASGPAGREKTLRQAGAPNNRWRE
ELSHMKRLPPVLPGRPYDLAAATVATDLES GGAGAACGGSNLPLPRRETEEFNDLLDLFILSNL
THPPESVAATVSSASASSSSPSSSGPASAPSTCSFTYPIRAGNDPGVAPGGTGGGLLYGRESA
PPPTAPFNLADINDVSPSGGFVAELLRPELDPVYIPPPQPPGGGLMGKFKVLSAPGSEYGS
PSVISVSKGSPDGSHPVVVAPYNGGPPRTPCPKIKQEAVSSCTHLGAGPPLSNGHRPAAHDFPLGR
QLPSRTTPTLGLLEVLSSRDCHPALPLPPGFHHPGPNYPSFLPDQMPPVPLHYQELMPPGSC
MPEEPKPKRGRRSWPRKRTAT

Application Note

Cell culture, WB, ELISA, EMSA

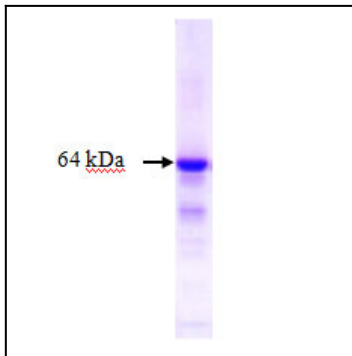


Fig 1. SDS-PAGE analysis of purified recombinant transcription factor, KLF4.

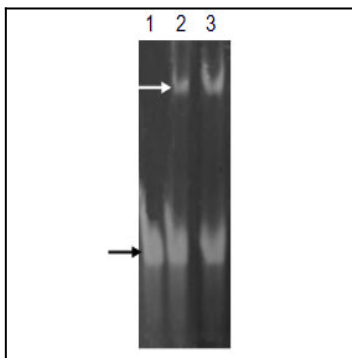


Fig 2. Binding activity of KLF4 with its DNA binding sequence (primer). 100 ng of primer was incubated with different concentrations of KLF4 protein and were subjected to native PAGE. Lane 1: Primer alone; lane 2: Primer with 1 µg of KLF4; lane 3: Primer with 5 µg of KLF4.