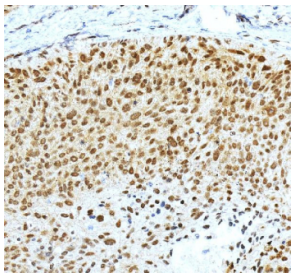
Krueppel-like factor 4 Antibody / KLF4 (RQ6883)

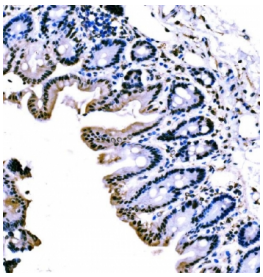
Catalog No.	Formulation	Size
RQ6883	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

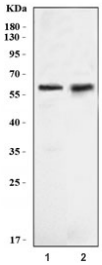
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	O43474
Localization	Nuclear
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Flow Cytometry : 1-3ug/million cells Direct ELISA : 0.1-0.5ug/ml
Limitations	This Krueppel-like factor 4 antibody is available for research use only.



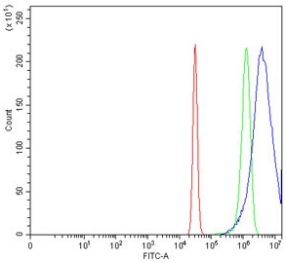
IHC staining of FFPE human skin cancer tissue with Krueppel-like factor 4 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



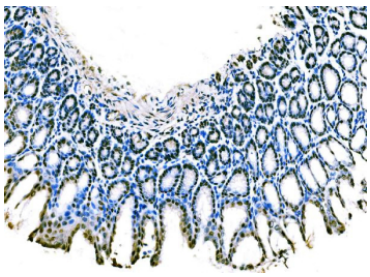
IHC staining of FFPE mouse stomach tissue with Krueppel-like factor 4 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot testing of human 1) PC-3 and 2) HeLa cell lysate with Krueppel-like factor 4 antibody. Predicted molecular weight: 50-60 kDa + possible ~75 kDa (phosphorylated form).



Flow cytometry testing of fixed and permeabilized human HeLa cells with Krueppel-like factor 4 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Krueppel-like factor 4 antibody.



IHC staining of FFPE rat stomach tissue with Krueppel-like factor 4 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

KKrueppel-like factor 4 (KLF4) is a zinc finger transcription factor that regulates a wide range of cellular processes, including proliferation, differentiation, and survival. As a member of the Krueppel-like factor family, it binds GC-rich DNA sequences and influences the expression of genes involved in epithelial biology, stem cell maintenance, and tissue regeneration. A Krueppel-like factor 4 antibody is commonly used to study transcriptional regulation and cellular identity in normal physiology and disease.

KLF4 plays dual roles in cancer biology. It can act as a tumor suppressor by promoting differentiation and inhibiting uncontrolled proliferation, but in other contexts it contributes to tumor progression by supporting cell survival and resistance to stress. This context-dependent behavior has made it a focal point of studies in oncology. Employing a Krueppel-like factor 4 antibody allows researchers to analyze its expression patterns and functional consequences in diverse cancer models.

KLF4 is also well known as one of the original Yamanaka factors, along with OCT4, SOX2, and c-MYC, used to reprogram somatic cells into induced pluripotent stem cells (iPSCs). Its ability to regulate pluripotency and stemness has made it a valuable marker in stem cell research and regenerative medicine. Using a Krueppel-like factor 4 antibody enables scientists to track its role in reprogramming and cell fate determination.

NSJ Bioreagents provides a high-quality Krueppel-like factor 4 antibody validated for applications such as western blot, immunohistochemistry, and chromatin immunoprecipitation. Selecting a Krueppel-like factor 4 antibody from NSJ Bioreagents ensures sensitivity and reproducibility in studies of transcriptional regulation, stem cell biology, and cancer research.

Application Notes

Optimal dilution of the Krueppel-like factor 4 antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids M1-H389) was used as the immunogen for the Krueppel-like factor 4 antibody.

Storage

After reconstitution, the Krueppel-like factor 4 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Copyright © NSJ Bioreagents. All rights reserved.