

KLF16 (F-4): sc-377519

BACKGROUND

Krüppel-like factors (KLFs) comprise a family of evolutionarily conserved zinc finger-containing transcription factors with diverse regulatory functions in cell growth, proliferation, differentiation and embryogenesis. Individual members of the Sp1-like/KLF family can function either as activators or repressors, depending on which promoter they bind and which coregulators they interact with. KLF16 (Krüppel-like factor 16), also known as BTEB4, DRRF (dopamine receptor-regulating factor) or NSLP2, is a 252 amino acid protein that contains three C₂H₂-type zinc fingers and belongs to the KLF transcription factor family. Localized to the nucleus and expressed at high levels in brain, KLF16 functions as a transcription factor that binds specifically to GT and GC boxes, displacing the transcription factors Sp1 and Sp3 and effectively modulating dopaminergic transmission in the brain.

REFERENCES

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- Hwang, C.K., et al. 2001. Dopamine receptor regulating factor, DRRF: a zinc finger transcription factor. *Proc. Natl. Acad. Sci. USA* 98: 7558-7563.
- Kaczynski, J.A., et al. 2002. Functional analysis of basic transcription element (BTE)-binding protein (BTEB) 3 and BTEB4, a novel Sp1-like protein, reveals a subfamily of transcriptional repressors for the BTE site of the cytochrome P4501A1 gene promoter. *Biochem. J.* 366: 873-882.
- D'Souza, U.M., et al. 2002. Developmental expression of the zinc finger transcription factor DRRF (dopamine receptor regulating factor). *Mech. Dev.* 110: 197-201.
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CHROMOSOMAL LOCATION

Genetic locus: KLF16 (human) mapping to 19p13.3.

SOURCE

KLF16 (F-4) is a mouse monoclonal antibody raised against amino acids 207-252 mapping at the C-terminus of KLF16 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

KLF16 (F-4) is available conjugated to agarose (sc-377519 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377519 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377519 PE), fluorescein (sc-377519 FITC), Alexa Fluor® 488 (sc-377519 AF488), Alexa Fluor® 546 (sc-377519 AF546), Alexa Fluor® 594 (sc-377519 AF594) or Alexa Fluor® 647 (sc-377519 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377519 AF680) or Alexa Fluor® 790 (sc-377519 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

KLF16 (F-4) is recommended for detection of KLF16 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for KLF16 siRNA (h): sc-97813, KLF16 shRNA Plasmid (h): sc-97813-SH and KLF16 shRNA (h) Lentiviral Particles: sc-97813-V.

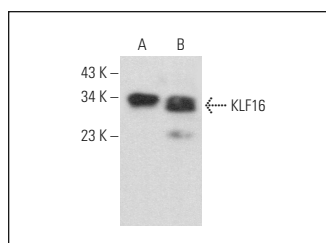
Molecular Weight of KLF16: 25 kDa.

Positive Controls: Raji whole cell lysate: sc-364236 or Jurkat whole cell lysate: sc-2204.

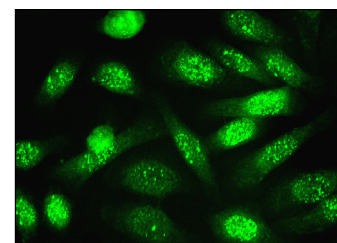
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



KLF16 (F-4): sc-377519. Western blot analysis of KLF16 expression in Raji (A) and Jurkat (B) whole cell lysates.



KLF16 (F-4): sc-377519. Immunofluorescence staining of formalin-fixed SW480 cells showing nuclear localization.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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