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# KLF16 (h): 293T Lysate: sc-174472

## 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 3 C<sub>2</sub>H<sub>2</sub>-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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3. 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.
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6. Lee, S.H., et al. 2003. Genomic organization and promoter characterization of the murine dopamine receptor regulating factor (DRRF) gene. *Gene* 304: 193-199.
7. Chiambaretta, F., et al. 2004. Cell and tissue specific expression of human Krüppel-like transcription factors in human ocular surface. *Mol. Vis.* 10: 901-909.
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## CHROMOSOMAL LOCATION

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

## PRODUCT

KLF16 (h): 293T Lysate represents a lysate of human KLF16 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

KLF16 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive KLF16 antibodies. Recommended use: 10-20  $\mu$ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

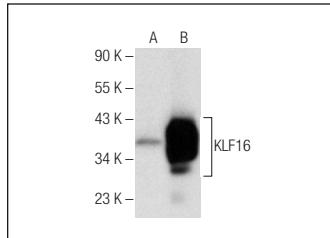
KLF16 (F-4): sc-377519 is recommended as a positive control antibody for Western Blot analysis of enhanced human KLF16 expression in KLF16 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG<sub>κ</sub> BP-HRP: sc-516102 or m-IgG<sub>κ</sub> 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.

## DATA



KLF16 (F-4): sc-377519. Western blot analysis of KLF16 expression in non-transfected: sc-117752 (**A**) and human KLF16 transfected: sc-174472 (**B**) 293T whole cell lysates.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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](http://www.scbt.com) for detailed protocols and support products.