**BACKGROUND**

The human DLK gene maps to human chromosome 14q32.2 and encodes a 383 amino acid protein. DLK, also designated preadipocyte factor 1 (pref-1), ZOG, pG2 or FA1, is a transmembrane protein with six tandem EGF-like repeats in the putative extracellular domain, which is characteristic of the EGF-like protein family. DLK shares homology with invertebrate homeotic proteins, including Delta and Notch, which are proteins that mediate normal neural differentiation in *Drosophila*. In mammalian preadipocytes, multiple discrete forms of DLK protein are present due to N-linked glycosylation. DLK is expressed in tumors with neuroendocrine features, such as neuroblastoma and pheochromocytoma cell lines. Normal tissue expression is restricted to the adrenal gland and placenta. Protein-protein interaction between DLK proteins belonging to the same or to different cells, or the interaction between soluble and membrane DLK variants, may be important in regulation of DLK function.

**CHROMOSOMAL LOCATION**

Genetic locus: DLK1 (human) mapping to 14q32.2; Dlk1 (mouse) mapping to 12 F1.

**SOURCE**

DLK (B-7) is a mouse monoclonal antibody raised against amino acids 266-383 of DLK of human origin.

**PRODUCT**

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

DLK (B-7) is available conjugated to agarose (sc-376755 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376755 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-376755 PE), fluorescein (sc-376755 FITC), Alexa Fluor® 488 (sc-376755 AF488) or Alexa Fluor® 647 (sc-376755 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

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**APPLICATIONS**

DLK (B-7) is recommended for detection of DLK of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 DLK siRNA (h): sc-39669, DLK siRNA (m): sc-39670, DLK shRNA Plasmid (h): sc-39669-SH, DLK shRNA Plasmid (m): sc-39670-SH, DLK shRNA (h) Lentiviral Particles: sc-39669-V and DLK shRNA (m) Lentiviral Particles: sc-39670-V.

Molecular Weight of DLK isoforms: 45-60 kDa.

Positive Controls: JAR cell lysate: sc-2276 and human placenta extract: sc-363772.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-376755 AF488, or Alexa Fluor® 647 (sc-376755 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

**DATA**

**SELECT PRODUCT CITATIONS**


**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.