DDEFL1 (m): 293T Lysate: sc-125230



The Power to Question

BACKGROUND

DDEFL1 (development and differentiation enhancing factor-like 1), also known as ACAP4, UPLC1, CENTB6 or ASAP3 (ARFGAP with SH3 domain, ankyrin repeat and PH domain 3), is a 903 amino acid cytoplasmic protein belonging to the subfamily of ADP-ribosylation factor (ARF) GTPase-activating proteins. DDEFL1 contains two ANK repeats, an ARFGAP domain and a PH domain, and is expressed in lung, liver, blood leukocytes and primary hepatocarcinoma. The ARFGAP domain of DDEFL1 catalyzes the hydrolysis of GTP bound to ARF proteins. DDEFL1 promotes cell differentiation and migration, and has been implicated in the pathogenesis of hepatocellular carcinoma. Existing as two isoforms produced by alternative splicing events, DDEFL1 is encoded by a gene located on human chromosome 1p36.12. Human chromosome 1 spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome.

REFERENCES

- Jackson, T.R., Brown, F.D., Nie, Z., Miura, K., Foroni, L., Sun, J., Hsu, V.W., Donaldson, J.G. and Randazzo, P.A. 2000. ACAPs are ARF6 GTPaseactivating proteins that function in the cell periphery. J. Cell Biol. 151: 627-638.
- Randazzo, P.A., Nie, Z., Miura, K. and Hsu, V.W. 2000. Molecular aspects of the cellular activities of ADP-ribosylation factors. Sci. STKE 2000: re1.
- Okabe, H., Furukawa, Y., Kato, T., Hasegawa, S., Yamaoka, Y. and Nakamura, Y. 2004. Isolation of development and differentiation enhancing factor-like 1 (DDEFL1) as a drug target for hepatocellular carcinomas. Int. J. Oncol. 24: 43-48.
- Randazzo, P.A. and Hirsch, D.S. 2004. ARFGAPs: multifunctional proteins that regulate membrane traffic and Actin remodelling. Cell. Signal. 16: 401-413.
- Sabe, H., Onodera, Y., Mazaki, Y. and Hashimoto, S. 2006. ARFGAP family proteins in cell adhesion, migration and tumor invasion. Curr. Opin. Cell Biol. 18: 558-564
- Fang, Z., Miao, Y., Ding, X., Deng, H., Liu, S., Wang, F., Zhou, R., Watson, C., Fu, C., Hu, Q., Lillard, J.W., Powell, M., Chen, Y., Forte, J.G. and Yao, X. 2006. Proteomic identification and functional characterization of a novel ARF6 GTPase-activating protein, ACAP4. Mol. Cell. Proteomics 5: 1437-1449.
- 7. Randazzo, P.A., Inoue, H. and Bharti, S. 2007. ARFGAPs as regulators of the actin cytoskeleton. Biol. Cell 99: 583-600.
- 8. Inoue, H. and Randazzo, P.A. 2007. ARFGAPs and their interacting proteins. Traffic 8: 1465-1475.
- Ha, V.L., Bharti, S., Inoue, H., Vass, W.C., Campa, F., Nie, Z., de Gramont, A., Ward, Y. and Randazzo, P.A. 2008. ASAP3 is a focal adhesion-associated ARFGAP that functions in cell migration and invasion. J. Biol. Chem. 283: 14915-14926.

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.

CHROMOSOMAL LOCATION

Genetic locus: Asap3 (mouse) mapping to 4 D3.

PRODUCT

DDEFL1 (m): 293T Lysate represents a lysate of mouse DDEFL1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

DDEFL1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive DDEFL1 antibodies. Recommended use: 10-20 µl per lane.

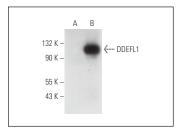
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

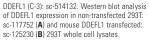
DDEFL1 (C-3): sc-514132 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse DDEFL1 expression in DDEFL1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

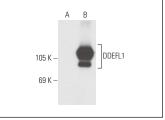
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA







DDEFL1 (57.66): sc-135740. Western blot analysis of DDEFL1 expression in non-transfected: sc-117752 (A) and mouse DDEFL1 transfected: sc-125230 (B) 293T whole cell Iwastes

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.