

NUDT6 (h): 293T Lysate: sc-173806

BACKGROUND

NUDT6 (nudix (nucleoside diphosphate linked moiety X)-type motif 6), also known as antisense basic fibroblast growth factor or GFG-1, is a member of the nudix hydrolase family of pyrophosphatases. Nudix hydrolases contain a characteristic nudix domain and are responsible for catalyzing the hydrolysis of nucleoside diphosphate derivatives. The gene encoding NUDT6 is an FGF-2 gene antisense transcript, and NUDT6 is believed to regulate FGF-2 expression. FGF-2 is a multifunctional heparin-binding growth factor important to angiogenesis, neuroectoderm development and wound healing. NUDT6 is expressed as two isoforms produced by alternative splicing.

REFERENCES

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2. Li, A.W., et al. 1997. FGF-2 antisense RNA encodes a nuclear protein with MutT-like antimutator activity. *Mol. Cell. Endocrinol.* 133: 177-182.
3. Gagnon, M.L., et al. 1999. Characterization of the promoter for the human antisense fibroblast growth factor-2 gene; regulation by Ets in Jurkat T cells. *J. Cell. Biochem.* 72: 492-506.
4. Duplan, S.M., et al. 2002. Antitumor activity of fibroblast growth factors (FGFs) for medulloblastoma may correlate with FGF receptor expression and tumor variant. *Clin. Cancer Res.* 8: 246-257.
5. Sheng, Z., et al. 2004. Nuclear and nucleolar localization of 18-kDa fibroblast growth factor-2 is controlled by C-terminal signals. *J. Biol. Chem.* 279: 40153-40160.
6. Pezzatini, S., et al. 2007. Nanostructured HA crystals up-regulate FGF-2 expression and activity in microvascular endothelium promoting angiogenesis. *Bone* 41: 523-534.
7. Zhang, S.C., et al. 2007. Alternative splicing of the FGF antisense gene: differential subcellular localization in human tissues and esophageal adenocarcinoma. *J. Mol. Med.* 85: 1215-1228.
8. Baguma-Nibasheka, M., et al. 2007. The fibroblast growth factor-2 antisense gene inhibits nuclear accumulation of FGF-2 and delays cell cycle progression in C6 glioma cells. *Mol. Cell. Endocrinol.* 267: 127-136.
9. Xiao, D., et al. 2008. Inhibition of fibroblast growth factor 2-induced apoptosis involves survivin expression, protein kinase C α activation and subcellular translocation of Smac in human small cell lung cancer cells. *Acta Biochim. Biophys. Sin.* 40: 297-303.

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.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: NUDT6 (human) mapping to 4q28.1.

PRODUCT

NUDT6 (h): 293T Lysate represents a lysate of human NUDT6 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

NUDT6 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive NUDT6 antibodies. Recommended use: 10-20 μ l per lane.

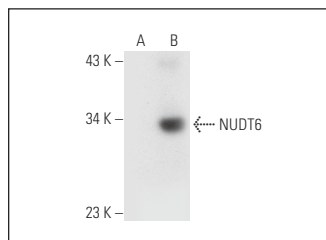
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

NUDT6 (F-2): sc-398717 is recommended as a positive control antibody for Western Blot analysis of enhanced human NUDT6 expression in NUDT6 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 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.

DATA



NUDT6 (F-2): sc-398717. Western blot analysis of NUDT6 expression in non-transfected: sc-117752 (A) and human NUDT6 transfected: sc-173806 (B) 293T whole cell lysates.

RESEARCH USE

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