

IGF2BP3 (h): 293T Lysate: sc-117068

BACKGROUND

Insulin like growth factor 2 mRNA binding proteins (IGF2BPs) bind RNA and influence RNA synthesis and metabolism. IGF2BP1, also known as coding region determinant-binding protein/insulin-like growth factor II mRNA-binding protein (CRD-BP), IMP1 or VICKZ1; IGF2BP2 (IMP2, VICKZ2, p62); and IGF2BP3 (IMP3, KOC1, VICKZ3) contain a unique combination of RNA recognition motifs and four hnRNP K homology domains. IGF2BP1 is abundant in embryonal tissues and is expressed in 81% of colon cancers, 73% of sarcomas and 58.5% of breast cancers. It recognizes c-Myc, IGF-II and t mRNAs, and H19 RNA, and plays a major role in proliferation of K-562 cells by an IGF-II-dependent mechanism. IGF2BP2 binds the 5' UTR of IGF-II mRNA and influences tumor cell growth, in which IGF2BP2 is associated with apoptosis induced by tretinoin. IGF2BP3 knockdown by RNA interference decreases levels of IGF-II protein without affecting IGF-II, c-Myc, or β Actin mRNA and H19 RNA levels. IGF2BP3 is a marker for carcinomas and high-grade dysplastic lesions of pancreatic ductal epithelium.

REFERENCES

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2. Ioannidis, P., et al. 2001. c-Myc and IGF-II mRNA-binding protein (CRD-BP/IMP-1) in benign and malignant mesenchymal tumors. *Int. J. Cancer* 94: 480-484.
3. Ioannidis, P., et al. 2003. 8q24 Copy number gains and expression of the c-Myc mRNA stabilizing protein CRD-BP in primary breast carcinomas. *Int. J. Cancer* 104: 54-59.
4. Liao, B., et al. 2004. Targeted knockdown of the RNA-binding protein CRD-BP promotes cell proliferation via an Insulin-like growth factor II-dependent pathway in human K-562 leukemia cells. *J. Biol. Chem.* 279: 48716-48724.
5. Ping, S., et al. 2005. Effect of all-*trans*-retinoic acid on mRNA binding protein p62 in human gastric cancer cells. *Int. J. Biochem. Cell Biol.* 37: 616-627.
6. Liao, B., et al. 2005. The RNA-binding protein IMP-3 is a translational activator of Insulin-like growth factor II leader-3 mRNA during proliferation of human K-562 leukemia cells. *J. Biol. Chem.* 280: 18517-18524.
7. Ioannidis, P., et al. 2005. CRD-BP/IMP-1 expression characterizes cord blood CD34⁺ stem cells and affects c-Myc and IGF-II expression in MCF7 cancer cells. *J. Biol. Chem.* 280: 20086-20093.

CHROMOSOMAL LOCATION

Genetic locus: IGF2BP3 (human) mapping to 7p15.3.

PRODUCT

IGF2BP3 (h): 293T Lysate represents a lysate of human IGF2BP3 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

IGF2BP3 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive IGF2BP3 antibodies. Recommended use: 10-20 μ l per lane.

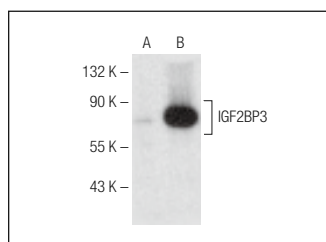
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

IGF2BP3 (G-9): sc-376067 is recommended as a positive control antibody for Western Blot analysis of enhanced human IGF2BP3 expression in IGF2BP3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

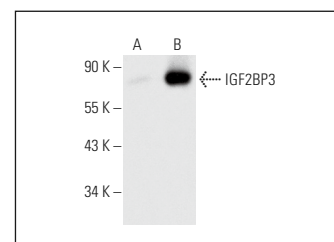
RECOMMENDED SUPPORT REAGENTS

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



IGF2BP3 (G-9): sc-376067. Western blot analysis of IGF2BP3 expression in non-transfected: sc-117752 (A) and human IGF2BP3 transfected: sc-117068 (B) 293T whole cell lysates.



IGF2BP3 (E-2): sc-365640. Western blot analysis of IGF2BP3 expression in non-transfected: sc-117752 (A) and human IGF2BP3 transfected: sc-117068 (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.

PROTOCOLS

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