

IGF2BP1/2/3 (A-2): sc-271785

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.

SOURCE

IGF2BP1/2/3 (A-2) is a mouse monoclonal antibody raised against amino acids 278-577 mapping at the C-terminus of IGF2BP1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IGF2BP1/2/3 (A-2) is available conjugated to agarose (sc-271785 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271785 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271785 PE), fluorescein (sc-271785 FITC), Alexa Fluor® 488 (sc-271785 AF488), Alexa Fluor® 546 (sc-271785 AF546), Alexa Fluor® 594 (sc-271785 AF594) or Alexa Fluor® 647 (sc-271785 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271785 AF680) or Alexa Fluor® 790 (sc-271785 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

IGF2BP1/2/3 (A-2) is recommended for detection of IGF2BP1, IGF2BP2 and IGF2BP3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

IGF2BP1/2/3 (A-2) is also recommended for detection of IGF2BP1, IGF2BP2 and IGF2BP3 in additional species, including equine, canine, bovine and porcine.

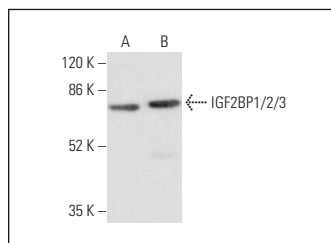
Molecular Weight of IGF2BP1/2/3: 63 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, U-698-M whole cell lysate: sc-364799 or P19 cell lysate: sc-24760.

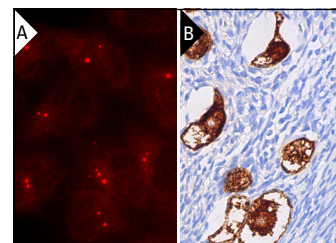
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



IGF2BP1/2/3 (A-2): sc-271785. Western blot analysis of IGF2BP1/2/3 expression in U-698-M (A) and K-562 (B) whole cell lysates.



IGF2BP1/2/3 (A-2): sc-271785. Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing cytoplasmic and nuclear staining of oocytes (B).

SELECT PRODUCT CITATIONS

1. Waly, A.A., et al. 2019. Methylation in MIRLET7A3 gene induces the expression of IGF-II and its mRNA binding proteins IGF2BP-2 and 3 in hepatocellular carcinoma. *Front. Physiol.* 9: 1918.
2. Zhou, J., et al. 2021. ADSCs enhance VEGFR3-mediated lymphangiogenesis via METTL3-mediated VEGF-C m⁶A modification to improve wound healing of diabetic foot ulcers. *Mol. Med.* 27: 146.
3. Wang, P., et al. 2023. Adult progenitor rejuvenation with embryonic factors. *Cell Prolif.* 56: e13459.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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

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