

IGF2BP1 (G-8): sc-390149

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.

CHROMOSOMAL LOCATION

Genetic locus: IGF2BP1 (human) mapping to 17q21.32; Igf2bp1 (mouse) mapping to 11 D.

SOURCE

IGF2BP1 (G-8) is a mouse monoclonal antibody raised against a peptide mapping within an internal region of IGF2BP1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-390149 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

IGF2BP1 (G-8) is recommended for detection of IGF2BP1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

IGF2BP1 (G-8) is also recommended for detection of IGF2BP1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for IGF2BP1 siRNA (h): sc-40694, IGF2BP1 siRNA (m): sc-40695, IGF2BP1 siRNA (r): sc-270306, IGF2BP1 shRNA Plasmid (h): sc-40694-SH, IGF2BP1 shRNA Plasmid (m): sc-40695-SH, IGF2BP1 shRNA Plasmid (r): sc-270306-SH, IGF2BP1 shRNA (h) Lentiviral Particles: sc-40694-V, IGF2BP1 shRNA (m) Lentiviral Particles: sc-40695-V and IGF2BP1 shRNA (r) Lentiviral Particles: sc-270306-V.

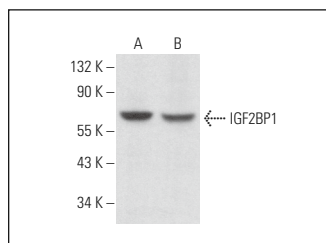
Molecular Weight of IGF2BP1: 63 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, P19 cell lysate: sc-24760 or Caco-2 cell lysate: sc-2262.

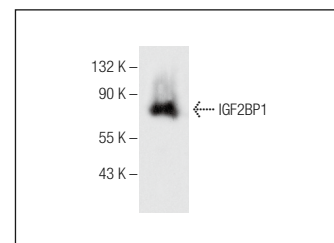
RECOMMENDED SUPPORT REAGENTS

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.

DATA



IGF2BP1 (G-8): sc-390149. Western blot analysis of IGF2BP1 expression in Hep G2 (A) and Caco-2 (B) whole cell lysates.



IGF2BP1 (G-8): sc-390149. Western blot analysis of IGF2BP1 expression in P19 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Yang, M., et al. 2020. Human Insulin growth factor 2 mRNA binding protein 2 increases miR-33a/b inhibition of liver ABCA1 expression and alters low-density apolipoprotein levels in mice. *Mol. Cell. Biol.* 40: e00058-20.
2. Liu, M., et al. 2022. Silencing of IGF2BP1 restrains ox-LDL-induced lipid accumulation and inflammation by reducing RUNX1 expression and promoting autophagy in macrophages. *J. Biochem. Mol. Toxicol.* 36: e22994.

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.