SANTA CRUZ BIOTECHNOLOGY, INC.

# IMP-3 (H-37): sc-292451

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

IGF-II mRNA-binding proteins (IMPs) bind RNA and influence RNA synthesis and metabolism. IMP-1, also known as coding region determinant-binding protein/Insulin-like growth factor II mRNA-binding protein (CRD-BP) and VICKZ1, IMP-2 (IMP2, VICKZ2, p62) and IMP-3 (KOC1, VICKZ3) contain a unique combination of RNA recognition motifs and four hnRNP K homology domains. IMP-1 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. IMP-2 binds the 5' UTR of IGF-II mRNA and influences tumor cell growth, in which IMP-2 is associated with apoptosis induced by tretinoin. IMP-3 knockdown by RNA interference decreases levels of IGF-II protein without affecting IGF-II, c-Myc or β-Actin mRNA and H19 RNA levels. IMP-3 is a marker for carcinomas and high-grade dysplastic lesions of pancreatic ductal epithelium.

## CHROMOSOMAL LOCATION

Genetic locus: IGF2BP3 (human) mapping to 7p15.3; Igf2bp3 (mouse) mapping to 6 B2.3.

## SOURCE

IMP-3 (H-37) is a rabbit polyclonal antibody raised against amino acids 377-413 mapping near the C-terminus of IMP-3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

IMP-3 (H-37) is recommended for detection of IMP-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

IMP-3 (H-37) is also recommended for detection of IMP-3 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for IMP-3 siRNA (h): sc-60846, IMP-3 siRNA (m): sc-60847, IMP-3 shRNA Plasmid (h): sc-60846-SH, IMP-3 shRNA Plasmid (m): sc-60847-SH, IMP-3 shRNA (h) Lentiviral Particles: sc-60846-V and IMP-3 shRNA (m) Lentiviral Particles: sc-60847-V.

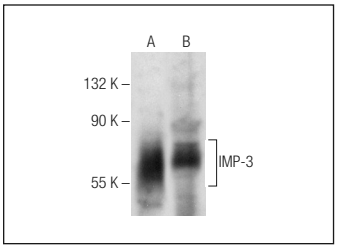
Molecular Weight of IMP-3: 69 kDa.

Positive Controls: mouse kidney extract: sc-2255 or Caco-2 cell lysate: sc-2262.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA




IMP-3 (H-37): sc-292451. Western blot analysis of IMP-3 expression in Caco-2 whole cell lysate (**A**) and mouse kidney tissue extract (**B**).

## RESEARCH USE

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

## PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **IMP-3 (E-2): sc-365640** or **IMP-3 (C-11): sc-365641**, our highly recommended monoclonal alternatives to IMP-3 (H-37).