

# SBP-2 (T-20): sc-13420

## BACKGROUND

Eukaryotes require a selenocysteine (Sec) insertion sequence (SECIS) element in the 3' untranslated region of the mRNA to decode the UGA codon as Sec. SECIS-binding protein 2 (SBP2) specifically binds selenoprotein mRNAs(2) to form a 500 kDa functional complex and is essential for the insertion of Sec into selenoproteins. Purified SBP2 carries a molecular weight of 120 kDa and interacts specifically with the SECIS element in the phospholipid hydroperoxide glutathione peroxidase mRNA. SBP2 shows binding activity in the liver and testis as well as hepatoma cells. SBP2 binds to a conserved RNA binding domain shared with several ribosomal proteins and eukaryotic translation termination release factor 1. A second domain located N-terminal to the RNA binding domain required for Sec insertion allows SBP2 to stably associate with the ribosomal fraction of cells. SBP2 preferentially stimulates incorporation directed by the selenoprotein P and phospholipid hydroperoxide glutathione peroxidase SECIS elements. SBP2 may have a distinct function in selecting the ribosomes for Sec insertion.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: SECISBP2 (human) mapping to 9q22.2; Secisbp2 (mouse) mapping to 13 B1.

## SOURCE

SBP-2 (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SBP-2 of rat origin.

## RESEARCH USE

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

## PRODUCT

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

Blocking peptide available for competition studies, sc-13420 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SBP-2 (T-20) is recommended for detection of SBP-2 of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for SBP-2 siRNA (h): sc-106885, SBP-2 siRNA (m): sc-153236, SBP-2 shRNA Plasmid (h): sc-106885-SH, SBP-2 shRNA Plasmid (m): sc-153236-SH, SBP-2 shRNA (h) Lentiviral Particles: sc-106885-V and SBP-2 shRNA (m) Lentiviral Particles: sc-153236-V.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **SBP-2 (C-10): sc-393651**, our highly recommended monoclonal alternative to SBP-2 (T-20).