

p-53BP1 (Ser 1778): sc-109897

BACKGROUND

53BP1, also known as TP53BP1 (tumor protein p53 binding protein 1) or p202, is a 1,972 amino acid protein that is associated with kinetochores and contains 2 BRCT domains. Existing as multiple alternatively spliced isoforms, 53BP1 interacts with p53 and is thought to play a role in checkpoint signaling during mitosis, possibly enhancing p53-mediated transcriptional activation and influencing the cellular response to DNA damage. 53BP1 is subject to post-translational phosphorylation on specific amino acid residues, including Ser 1778, Ser 25 and Ser 29. The gene encoding 53BP1 maps to human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TP53BP1 (human) mapping to 15q15.3.

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 or our catalog for detailed protocols and support products.

SOURCE

p-53BP1 (Ser 1778) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 1778 of 53BP1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109897 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-53BP1 (Ser 1778) is recommended for detection of Ser 1778 phosphorylated 53BP1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p-53BP1 (Ser 1778) is also recommended for detection of correspondingly phosphorylated 53BP1 in additional species, including equine and canine.

Suitable for use as control antibody for 53BP1 siRNA (h): sc-37455, 53BP1 shRNA Plasmid (h): sc-37455-SH and 53BP1 shRNA (h) Lentiviral Particles: sc-37455-V.

Molecular Weight (predicted) of p-53BP1: 214 kDa.

Molecular Weight (observed) of p-53BP1: 245-460 kDa.

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) 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.

RESEARCH USE

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