

GTBP (H-140): sc-25835

BACKGROUND

The finding that mutations in DNA mismatch repair genes are associated with hereditary nonpolyposis colorectal cancer (HNPCC) has resulted in considerable interest in the understanding of the mechanism of DNA mismatch repair. Initially, inherited mutations in the MSH2 and MLH1 homologs of the bacterial DNA mismatch repair genes mutS and mutL were demonstrated at high frequency in HNPCC and were shown to be associated with microsatellite instability. A member of the mismatch repair family, GTBP (also designated MSH6), is an MSH2-related protein that binds to DNA containing G/T mismatches. Findings suggest that the mismatch-binding factor in human cells is composed of a heterodimer of GTBP and MSH2.

REFERENCES

1. Peltomäki, P., et al. 1993. Genetic mapping of a locus predisposing to human colorectal cancer. *Science* 260: 810-812.
2. Palombo, F., et al. 1994. Mismatch repair and cancer. *Nature* 367: 417-418.

CHROMOSOMAL LOCATION

Genetic locus: MSH6 (human) mapping to 2p16.3; Msh6 (mouse) mapping to 17 E4.

SOURCE

GTBP (H-140) is a goat polyclonal antibody raised against amino acids 1221-1360 mapping at the C-terminus of GTBP 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.

RESEARCH USE

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

APPLICATIONS

GTBP (H-140) is recommended for detection of GTBP 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), 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).

GTBP (H-140) is also recommended for detection of GTBP in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GTBP siRNA (h): sc-35528, GTBP siRNA (m): sc-35529, GTBP shRNA Plasmid (h): sc-35528-SH, GTBP shRNA Plasmid (m): sc-35529-SH, GTBP shRNA (h) Lentiviral Particles: sc-35528-V and GTBP shRNA (m) Lentiviral Particles: sc-35529-V.

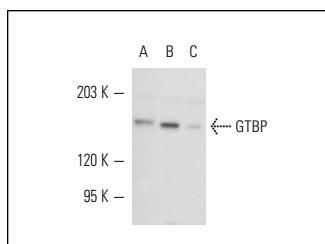
Molecular Weight of GTBP: 160 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, SW480 nuclear extract: sc-2155 or DU 145 nuclear extract: sc-24960.

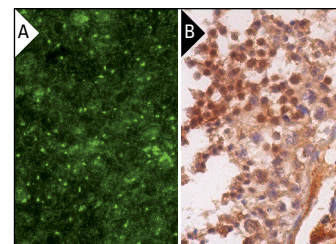
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



GTBP (H-140): sc-25835. Western blot analysis of GTBP expression in HeLa (A), SW480 (B) and DU 145 (C) nuclear extracts.



GTBP (H-140): sc-25835. Immunofluorescence staining of normal mouse lymph node frozen section showing cytoplasmic staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts and cytoplasmic staining of Leydig cells (B).

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.



Try **GTBP (E-8): sc-137015** or **GTBP (F-1): sc-271979**, our highly recommended monoclonal alternatives to GTBP (H-140).