

HLTF (D-15): sc-27543

BACKGROUND

The protein encoded by the HLTF gene is a member of the SWI/SNF family of proteins. Members of this family have helicase and ATPase activities and are thought to regulate transcription of certain genes by altering the chromatin structure around those genes. The HLTF encoded protein contains a RING finger DNA binding motif. Two transcript variants encoding the same protein have been found for this gene. However, use of an alternative translation start site produces an isoform which is truncated at the N-terminus as compared to the full-length protein. Transcriptional inactivation of HLTF by aberrant DNA methylation and histone deacetylation may be involved in stomach carcinogenesis through down-regulation of HLTF expression.

REFERENCES

1. Mansharamani, M., et al. 2001. Cloning and characterization of an atypical Type IV P-type ATPase that binds to the RING motif of RUSH transcription factors. *J. Biol. Chem.* 276: 3641-3649.
2. Moinova, H.R., et al. 2002. HLTF gene silencing in human colon cancer. *Proc. Natl. Acad. Sci. USA* 99: 4562-4567.
3. Hamai, Y., et al. 2003. DNA hypermethylation and histone hypoacetylation of the HLTF gene are associated with reduced expression in gastric carcinoma. *Cancer Sci.* 94: 692-698.
4. Leung, W.K., et al. 2003. Inactivation of helicase-like transcription factor by promoter hypermethylation in human gastric cancer. *Mol. Carcinog.* 37: 91-97.
5. SWISS-PROT/TrEMBL ("NP_003062"). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: HLTF (human) mapping to 3q24; Hltf (mouse) mapping to 3 A2.

SOURCE

HLTF (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of HLTF 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.

Blocking peptide available for competition studies, sc-27543 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-27543 X, 200 µg/0.1 ml.

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.

APPLICATIONS

HLTF (D-15) is recommended for detection of HLTF of mouse, rat and 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).

HLTF (D-15) is also recommended for detection of HLTF in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for HLTF siRNA (h): sc-45943, HLTF siRNA (m): sc-45944, HLTF shRNA Plasmid (h): sc-45943-SH, HLTF shRNA Plasmid (m): sc-45944-SH, HLTF shRNA (h) Lentiviral Particles: sc-45943-V and HLTF shRNA (m) Lentiviral Particles: sc-45944-V.

HLTF (D-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HLTF: 116 kDa.

Positive Controls: K-562 nuclear extract: sc-2130.

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.

PROTOCOLS

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