

HLTF (G-6): sc-398357

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.

CHROMOSOMAL LOCATION

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

SOURCE

HLTF (G-6) is a mouse monoclonal antibody raised against amino acids 923-1009 mapping at the C-terminus of HLTF of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-398357 X, 200 µg/0.1 ml.

HLTF (G-6) is available conjugated to agarose (sc-398357 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398357 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398357 PE), fluorescein (sc-398357 FITC), Alexa Fluor[®] 488 (sc-398357 AF488), Alexa Fluor[®] 546 (sc-398357 AF546), Alexa Fluor[®] 594 (sc-398357 AF594) or Alexa Fluor[®] 647 (sc-398357 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-398357 AF680) or Alexa Fluor[®] 790 (sc-398357 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

HLTF (G-6) is recommended for detection of HLTF of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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 (G-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

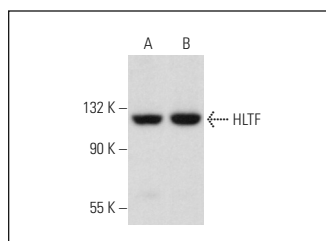
Molecular Weight of HLTF: 116 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Jurkat nuclear extract: sc-2132 or NTERA-2 cl.D1 nuclear extract.

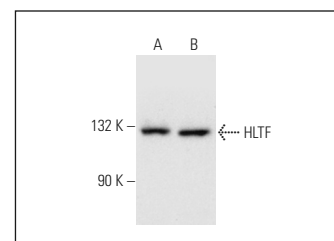
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



HLTF (G-6): sc-398357. Western blot analysis of HLTF expression in HeLa (A) and Jurkat (B) nuclear extracts.



HLTF (G-6): sc-398357. Western blot analysis of HLTF expression in HeLa (A) and NTERA-2 cl.D1 (B) nuclear extracts.

SELECT PRODUCT CITATIONS

1. Matos, D.A., et al. 2019. ATR protects the genome against R loops through a MUS81-triggered feedback loop. *Mol. Cell* 77: 514-527.
2. Thakar, T., et al. 2020. Ubiquitinated-PCNA protects replication forks from DNA2-mediated degradation by regulating Okazaki fragment maturation and chromatin assembly. *Nat. Commun.* 11: 2147.

RESEARCH USE

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