

# HYPB (S-12): sc-99452

## BACKGROUND

HYPB (huntingtin yeast partner B), also known as SETD2 (SET domain-containing protein 2) or HIF1, is a 2,564 amino acid nuclear protein that contains one WW domain, one SET domain, one post-SET domain and one AWS domain and belongs to the huntingtin interacting protein family. Expressed ubiquitously, HYPB functions as a histone methyltransferase that is specific for the lysine-36 residue of Histone H3 which, once methylated, plays a role in transcriptional activation and is associated with active chromatin. Due to its role in Histone H3 methylation, HYPB is thought to be involved in the modulation of chromatin structure and may also bind to DNA promoters and interact with Pol II, thereby promoting transcription. HYPB may be associated with the pathogenesis of the neurodegenerative disorder Huntington's Disease (HD), which is characterized by a loss of striatal neurons, leading to brain deterioration and, ultimately, death. Three isoforms of HYPB exist as a result of alternative splicing events.

## REFERENCES

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2. Passani, L.A., Bedford, M.T., Faber, P.W., McGinnis, K.M., Sharp, A.H., Gusella, J.F., Vonsattel, J.P. and MacDonald, M.E. 2000. Huntingtin's WW domain partners in Huntington's disease post-mortem brain fulfill genetic criteria for direct involvement in Huntington's disease pathogenesis. *Hum. Mol. Genet.* 9: 2175-2182.
3. Rega, S., Stiewe, T., Chang, D.I., Pollmeier, B., Esche, H., Bardenheuer, W., Marquitan, G. and Putzer, B.M. 2001. Identification of the full-length huntingtin-interacting protein p231HBP/HYPB as a DNA-binding factor. *Mol. Cell. Neurosci.* 18: 68-79.
4. Sun, X.J., Wei, J., Wu, X.Y., Hu, M., Wang, L., Wang, H.H., Zhang, Q.H., Chen, S.J., Huang, Q.H. and Chen, Z. 2005. Identification and characterization of a novel human Histone H3 lysine 36-specific methyltransferase. *J. Biol. Chem.* 280: 35261-35271.

## CHROMOSOMAL LOCATION

Genetic locus: SETD2 (human) mapping to 3p21.31; Setd2 (mouse) mapping to 9 F2.

## SOURCE

HYPB (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HYPB 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-99452 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-99452 X, 100 µg/0.1 ml.

## APPLICATIONS

HYPB (S-12) is recommended for detection of HYPB of mouse 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HYPB (S-12) is also recommended for detection of HYPB in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for HYPB siRNA (h): sc-78103, HYPB shRNA Plasmid (h): sc-78103-SH and HYPB shRNA (h) Lentiviral Particles: sc-78103-V.

HYPB (S-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

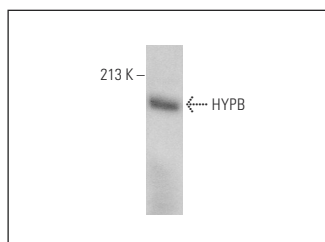
Molecular Weight of HYPB precursor: 285 kDa.

Positive Control: Jurkat nuclear extract: sc-2132.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



HYPB (S-12): sc-99452. Western blot analysis of HYPB expression in Jurkat nuclear extract.

## 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.