

GSH-2 (G-20): sc-130044

BACKGROUND

The homeobox DNA-binding domain is a 60 amino acid motif that is conserved among many species and functions to bind DNA via a helix-turn-helix structure. The homeobox DNA-binding domain is commonly found in proteins that play a role in development and are involved in transcriptional regulation and the control of gene expression. GSH-2 (GS homeobox-2), also known as GSX2, is a 304 amino acid protein that contains one homeobox DNA-binding domain. Localized to the nucleus, GSH-2 is thought to function as a transcription factor that selectively binds the DNA sequence 5'-CNAATTAG-3'. Specifically, GSH-2 may be involved in neuronal differentiation, playing a role in spinal cord development.

REFERENCES

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- Cools, J., et al. 2002. Evidence for position effects as a variant ETV6-mediated leukemogenic mechanism in myeloid leukemias with a t(4;12)(q11-q12;p13) or t(5;12)(q31;p13). *Blood* 99: 1776-1784.
- Dauwerse, J.G., et al. 2002. Heterozygous truncating mutation in the human homeo-box gene GSH2 has no discernable phenotypic effect. *J. Med. Genet.* 39: 686-688.
- Kriks, S., et al. 2005. GSH-2 is required for the repression of Ngn1 and specification of dorsal interneuron fate in the spinal cord. *Development* 132: 2991-3002.
- Fogarty, M., et al. 2007. Spatial genetic patterning of the embryonic neuroepithelium generates GABAergic interneuron diversity in the adult cortex. *J. Neurosci.* 27: 10935-10946.
- Von Ohlen, T., et al. 2007. Conserved properties of the *Drosophila* homeodomain protein, *Ind. Mech. Dev.* 124: 925-934.

CHROMOSOMAL LOCATION

Genetic locus: GSX2 (human) mapping to 4q12; Gsx2 (mouse) mapping to 5 C3.3.

SOURCE

GSH-2 (G-20) is a purified rabbit polyclonal antibody raised against GSH-2 of human origin.

PRODUCT

Each vial contains 100 µg of IgG in PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

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.

APPLICATIONS

GSH-2 (G-20) is recommended for detection of GSH-2 of mouse, rat, human and dog 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GSH-2 siRNA (h): sc-89137, GSH-2 siRNA (m): sc-145804, GSH-2 shRNA Plasmid (h): sc-89137-SH, GSH-2 shRNA Plasmid (m): sc-145804-SH, GSH-2 shRNA (h) Lentiviral Particles: sc-89137-V and GSH-2 shRNA (m) Lentiviral Particles: sc-145804-V.

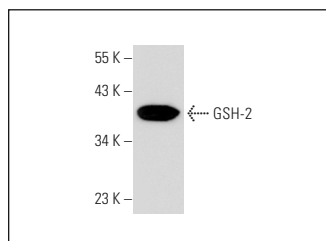
Molecular Weight of GSH-2: 32 kDa.

Positive Controls: LN18 whole cell lysate or SH-SY5Y cell lysate: sc-3812.

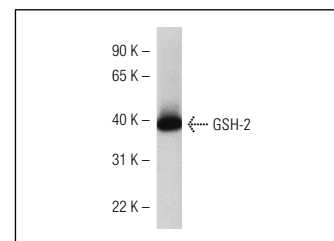
RECOMMENDED SECONDARY REAGENTS

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).

DATA



GSH-2 (G-20): sc-130044. Western blot analysis of GSH-2 expression in SH-SY5Y nuclear extract.



GSH-2 (G-20): sc-130044. Western blot analysis of GSH-2 expression in LN18 whole cell lysate.

RESEARCH USE

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