

Obox6 (W-21): sc-133861

BACKGROUND

Obox6 (oocyte specific homeobox 6) is a 347 amino acid murine protein that belongs to the Obox family of homeobox proteins, which includes Obox1, Obox3 and Obox5. Expressed preferentially in germ cells, Obox6 is thought to play an important role in normal embryogenesis and may be required for fertility. The gene encoding Obox6 maps to mouse chromosome 7, which houses over 1,800 genes and is the third largest murine chromosome. Containing genes that encode liver enzymes, Selenoproteins and olfactory receptors (Olfrs), chromosome 7 is associated with the regulation of body composition, as well as with the pathogenesis of myotonic dystrophy, motor neuron degeneration and the appearance of the albino phenotype.

REFERENCES

1. Saunders, A.M., et al. 1990. A molecular genetic linkage map of mouse chromosome 7. *Genomics* 8: 525-535.
2. Rajkovic, A., et al. 2002. Obox, a family of homeobox genes preferentially expressed in germ cells. *Genomics* 79: 711-717.
3. Gray, P.A., et al. 2004. Mouse brain organization revealed through direct genome-scale TF expression analysis. *Science* 306: 2255-2257.
4. Cheng, W.C., et al. 2007. Mice lacking the Obox6 homeobox gene undergo normal early embryonic development and are fertile. *Dev. Dyn.* 236: 2636-2642.
5. Gopinath, S., et al. 2007. A novel locus for distal motor neuron degeneration maps to chromosome 7q34-q36. *Hum. Genet.* 121: 559-564.
6. Reed, D.R., et al. 2008. QTL for body composition on chromosome 7 detected using a chromosome substitution mouse strain. *Obesity* 16: 483-487.
7. Tian, X., et al. 2009. Gene birth, death, and divergence: the different scenarios of reproduction-related gene evolution. *Biol. Reprod.* 80: 616-621.

CHROMOSOMAL LOCATION

Genetic locus: Obox6 (mouse) mapping to 7 A2.

SOURCE

Obox6 (W-21) is a Protein A purified rabbit polyclonal antibody raised against synthetic Obox6 peptide of mouse origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml 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

Obox6 (W-21) is recommended for detection of Obox6 of mouse 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 Obox6 siRNA (m): sc-150165, Obox6 shRNA Plasmid (m): sc-150165-SH and Obox6 shRNA (m) Lentiviral Particles: sc-150165-V.

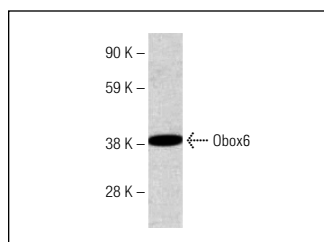
Molecular Weight of Obox6: 43 kDa.

Positive Controls: SP2/O whole cell lysate.

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



Obox6 (W-21): sc-133861. Western blot analysis of Obox6 expression in SP2/O whole cell lysate.

SELECT PRODUCT CITATIONS

1. Kim, H.M., et al. 2010. Obox4 regulates the expression of histone family genes and promotes differentiation of mouse embryonic stem cells. *FEBS Lett.* 584: 605-611.

RESEARCH USE

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