

HSGT1 (K-15): sc-162947

BACKGROUND

The *Drosophila* ecdysone (Ecd) protein is a steroid hormone that is responsible for the coordination of larval molting, embryogenesis and metamorphosis. Ecdysoneless1 (Ecd1) is a mutation in the *Drosophila* genome that disrupts the formation of Ecd, thus causing reproductive and developmental defects. HSGT1, also known as ECD (ecdysoneless homolog), hECD or SGT1 (suppressor of GCR2), is a 644 amino acid ortholog of the *Drosophila* Ecd1 protein. Expressed in heart and skeletal muscle, HSGT1 is thought to function as a p53-interacting protein that supports the stability and function of p53 and may regulate p53 expression.

REFERENCES

1. Henrich, V.C., Tucker, R.L., Maroni, G. and Gilbert, L.I. 1987. The ecdysoneless (ecd1ts) mutation disrupts ecdysteroid synthesis autonomously in the ring gland of *Drosophila melanogaster*. *Dev. Biol.* 120: 50-55.
2. Henrich, V.C., Livingston, L. and Gilbert, L.I. 1993. Developmental requirements for the ecdysoneless (ecd) locus in *Drosophila melanogaster*. *Dev. Genet.* 14: 369-377.
3. Sato, T., Jigami, Y., Suzuki, T. and Uemura, H. 1999. A human gene, HSGT1, can substitute for GCR2, which encodes a general regulatory factor of glycolytic gene expression in *Saccharomyces cerevisiae*. *Mol. Gen. Genet.* 260: 535-540.
4. Li, H. and Cooper, R.L. 2001. Effects of the ecdysoneless mutant on synaptic efficacy and structure at the neuromuscular junction in *Drosophila* larvae during normal and prolonged development. *Neuroscience* 106: 193-200.
5. Karpova, E.K., Gruntenko, N.E. and Raushenbakh, I.I. 2005. The ecdysoneless1 gene regulates metabolism of the juvenile hormone and dopamine in *Drosophila melanogaster*. *Genetika* 41: 1480-1486.
6. Zhang, Y., Chen, J., Gurumurthy, C.B., Kim, J., Bhat, I., Gao, Q., Dimri, G., Lee, S.W., Band, H. and Band, V. 2006. The human orthologue of *Drosophila* ecdysoneless protein interacts with p53 and regulates its function. *Cancer Res.* 66: 7167-7175.
7. Kainou, T., Shinzato, T., Sasaki, K., Mitsui, Y., Giga-Hama, Y., Kumagai, H. and Uemura, H. 2006. Spsgt1, a new essential gene of *Schizosaccharomyces pombe*, is involved in carbohydrate metabolism. *Yeast* 23: 35-53.

CHROMOSOMAL LOCATION

Genetic locus: ECD (human) mapping to 10q22.1; Ecd (mouse) mapping to 14 A3.

SOURCE

HSGT1 (K-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HSGT1 of human origin.

STORAGE

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

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-162947 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HSGT1 (K-15) is recommended for detection of HSGT1 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).

HSGT1 (K-15) is also recommended for detection of HSGT1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for HSGT1 siRNA (h): sc-90628, HSGT1 siRNA (m): sc-146093, HSGT1 shRNA Plasmid (h): sc-90628-SH, HSGT1 shRNA Plasmid (m): sc-146093-SH, HSGT1 shRNA (h) Lentiviral Particles: sc-90628-V and HSGT1 shRNA (m) Lentiviral Particles: sc-146093-V.

Molecular Weight of HSGT1: 73 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

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.

RESEARCH USE

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

PROTOCOLS

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