

# GCX-1 (P-17): sc-85576

## BACKGROUND

Human reproduction is controlled by the hypothalamic-pituitary gonadal axis (HPGA) that is laid down early in fetal development. GCX-1 (granulosa cell HMG box protein 1), also designated TOX2 (TOX high mobility group box family member 2), is a 488 amino acid transcription activator that is restricted to expression in the hypothalamus, pituitary, ovary, testis and uterus. This expression pattern in the HPGA suggests that this nuclear protein is likely related to specific events in reproduction, particularly in the female. GCX-1 contains a HMG-box domain, which is commonly found in proteins that function as intercellular regulators and transcriptional co-regulators, and are found to be involved in important events such as sex determination and in the regulation of T cell differentiation. There are two isoforms of GCX-1 which are produced as a result of alternative splicing events.

## REFERENCES

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- Sower, S.A., et al. 2008. The origins of the vertebrate hypothalamic-pituitary-gonadal (HPG) and hypothalamic-pituitary-thyroid (HPT) endocrine systems: new insights from lampreys. *Gen. Comp. Endocrinol.* 161: 20-29.
- Hasegawa, N. 2008. Effect of high mobility group box 1 (HMGB1) in cultured human periodontal ligament cells. *Kokubyo Gakkai Zasshi* 75: 155-161.
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## CHROMOSOMAL LOCATION

Genetic locus: TOX2 (human) mapping to 20q13.12; Tox2 (mouse) mapping to 2 H3.

## STORAGE

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

## SOURCE

GCX-1 (P-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of GCX-1 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-85576 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GCX-1 (P-17) is recommended for detection of GCX-1 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).

GCX-1 (P-17) is also recommended for detection of GCX-1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for GCX-1 siRNA (h): sc-75122, GCX-1 siRNA (m): sc-145368, GCX-1 shRNA Plasmid (h): sc-75122-SH, GCX-1 shRNA Plasmid (m): sc-145368-SH, GCX-1 shRNA (h) Lentiviral Particles: sc-75122-V and GCX-1 shRNA (m) Lentiviral Particles: sc-145368-V.

Molecular Weight of GCX-1: 53 kDa.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> 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](http://www.scbt.com) or our catalog for detailed protocols and support products.