# Serpina6 (T-15): sc-79063



The Power to Question

#### **BACKGROUND**

The serine proteinase inhibitors (serpins) comprise a superfamily of proteins with a diverse set of functions, including the control of blood coagulation, complement activation, programmed cell death and tissue development. SerpinA6, also known as CBG or Transcortin, is a 405 amino acid  $\alpha$ -globulin secreted protein that belongs to the serpin family. Synthesized in the liver and present in glycocorticoid responsive cells, SerpinA6 functions as the primary transport protein for progestins and glucorticoids within the blood. Additionally, SerpinA6 has corticosteroid-binding properties through which it can regulate the physiological binding of serum cortisol within the cell. Defects in the gene encoding SerpinA6 are the cause of corticosteroid-binding globulin deficiency (CBG deficiency), a rare disorder characterized by reduced corticosteroid-binding rates that result in hypo/hypertension and muscle fatigue.

# **REFERENCES**

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- Seixas, S., Suriano, G., Carvalho, F., Seruca, R., Rocha, J. and Di Rienzo, A. 2007. Sequence diversity at the proximal 14q32.1 SERPIN subcluster: evidence for natural selection favoring the pseudogenization of SERPINA2. Mol. Biol. Evol. 24: 587-598.
- Buss, C., Schuelter, U., Hesse, J., Moser, D., Phillips, D.I., Hellhammer, D. and Meyer, J. 2007. Haploinsufficiency of the SERPINA6 gene is associated with severe muscle fatigue: A *de novo* mutation in corticosteroid-binding globulin deficiency. J. Neural Transm. 114: 563-569.

## **STORAGE**

Store at  $4^{\circ}$  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.

#### **CHROMOSOMAL LOCATION**

Genetic locus: Serpina6 (mouse) mapping to 12 E.

#### **SOURCE**

Serpina6 (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Serpina6 of mouse origin.

#### **PRODUCT**

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79063 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

Serpina6 (S-17) is recommended for detection of Serpina6 of mouse and rat 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).

Suitable for use as control antibody for Serpina6 siRNA (m): sc-76475, Serpina6 shRNA Plasmid (m): sc-76475-SH and Serpina6 shRNA (m) Lentiviral Particles: sc-76475-V.

Molecular Weight of Serpina6: 43 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™ 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.

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