# POLR3B (S-13): sc-109402



The Power to Question

# **BACKGROUND**

RNA polymerase II (Pol II) is a multi-subunit complex responsible for catalyzing the transcription of DNA into RNA. POLR3B (polymerase (RNA) III (DNA directed) polypeptide B), also known as C128 or RPC2, is a 1,133 amino acid protein that localizes to the nucleus and belongs to the RNA polymerase  $\beta$  chain family. Existing as the second largest component of the multi-protein RNA polymerase III (Pol III) complex, POLR3B functions as a DNA-dependent RNA polymerase that specifically catalyzes the transcription of DNA into RNA using ribonucleoside triphosphates as substrates. The gene encoding POLR3B maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and Trisomy 12p, which causes facial developmental defects and seizure disorders.

# CHROMOSOMAL LOCATION

Genetic locus: POLR3B (human) mapping to 12q23.3; Polr3b (mouse) mapping to 10 C1.

#### **SOURCE**

POLR3B (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of POLR3B of human origin.

# **PRODUCT**

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

Blocking peptide available for competition studies, sc-109402 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **STORAGE**

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

#### **APPLICATIONS**

POLR3B (S-13) is recommended for detection of POLR3B of mouse, rat and human 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)], 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).

POLR3B (S-13) is also recommended for detection of POLR3B in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for POLR3B siRNA (h): sc-95786, POLR3B siRNA (m): sc-152377, POLR3B shRNA Plasmid (h): sc-95786-SH, POLR3B shRNA Plasmid (m): sc-152377-SH, POLR3B shRNA (h) Lentiviral Particles: sc-95786-V and POLR3B shRNA (m) Lentiviral Particles: sc-152377-V.

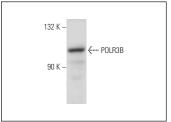
Molecular Weight of POLR3B: 128 kDa.

Positive Controls: HEL 92.1.7 nuclear extract.

#### **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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

# **DATA**



POLR3B (S-13): sc-109402. Western blot analysis of POLR3B expression in HEL 92.1.7 nuclear extract.

#### **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.



Try **POLR3B (G-6):** sc-515362, our highly recommended monoclonal alternative to POLR3B (S-13).

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