

## Six2 (H-40): sc-135274

### BACKGROUND

The Six proteins (sine oculis) are a family of homeodomain transcription factors that share a conserved DNA binding domain. Six2, Six4 (AREC3) and Six5 bind to the same DNA sequence, indicating that they may regulate the same target genes. Six1 and Six4 are both capable of transactivating MEF3 site containing reporter genes, such as myogenin. It has been demonstrated that alterations to homeobox-containing genes may result in cancer. Six1 expression has been shown to be absent or low in normal adult tissues, although it is expressed in several tumor types, including breast carcinoma. Six1 overexpression has been shown to abrogate the G<sub>2</sub> cell cycle checkpoint. Six2 is highly expressed in fetal tissues but expression is limited in adult tissues.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: SIX2 (human) mapping to 2p21; Six2 (mouse) mapping to 17 E4.

### SOURCE

Six2 (H-40) is a rabbit polyclonal antibody raised against amino acids 191-230 mapping within an internal region of Six2 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.

### STORAGE

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

### APPLICATIONS

Six2 (H-40) is recommended for detection of Six2 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).

Suitable for use as control antibody for Six2 siRNA (h): sc-38786, Six2 siRNA (m): sc-38787, Six2 shRNA Plasmid (h): sc-38786-SH, Six2 shRNA Plasmid (m): sc-38787-SH, Six2 shRNA (h) Lentiviral Particles: sc-38786-V and Six2 shRNA (m) Lentiviral Particles: sc-38787-V.

Molecular Weight of Six2: 32 kDa.

Positive Controls: mouse kidney extract: sc-2255.

### 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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **Six2 (H-4): sc-377193** or **Six2 (NB-A37): sc-135560**, our highly recommended monoclonal alternatives to Six2 (H-40).