

ORC6 (FL-252): sc-20636

BACKGROUND

The initiation of DNA replication is a multi-step process that depends on the formation of pre-replication complexes, which trigger initiation. Among the proteins required for establishing these complexes are the origin recognition complex (ORC) proteins. ORC proteins bind specifically to origins of replication where they serve as scaffold for the assembly of additional initiation factors. Human ORC subunits 1–6 are expressed in the nucleus of proliferating cells and tissues, such as the testis. ORC1 and ORC2 are both expressed at equivalent concentrations throughout the cell cycle; however, only ORC2 remains stably bound to chromatin. ORC4 and ORC6 are also expressed constantly throughout the cell cycle. ORC2, ORC3, ORC4 and ORC5 form a core complex upon which the ORC6 and ORC1 assemble. The formation of this core complex suggests ORC proteins play a crucial role in the G₁-S transition in mammalian cells.

REFERENCES

- Quintana, D.G., Hou, Z., Thome, K.C., Hendricks, M., Saha, P. and Dutta, A. 1997. Identification of the HsORC4, a member of the human origin of replication recognition complex. *J. Biol. Chem.* 272: 28247-28251.
- Mendez, J. and Stillman, B. 2000. Chromatin association of human origin recognition complex, cdc6, and minichromosome maintenance proteins during the cell cycle: assembly of prereplication complexes in late mitosis. *Mol. Cell Biol.* 20: 8602-8612.

CHROMOSOMAL LOCATION

Genetic locus: ORC6L (human) mapping to 16q12; Orc6l (mouse) mapping to 8 C3.

SOURCE

ORC6 (FL-252) is a rabbit polyclonal antibody raised against amino acids 1-252 representing full length ORC6 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.

APPLICATIONS

ORC6 (FL-252) is recommended for detection of ORC6 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 ORC6 siRNA (h): sc-38161, ORC6 siRNA (m): sc-38162, ORC6 shRNA Plasmid (h): sc-38161-SH, ORC6 shRNA Plasmid (m): sc-38162-SH, ORC6 shRNA (h) Lentiviral Particles: sc-38161-V and ORC6 shRNA (m) Lentiviral Particles: sc-38162-V.

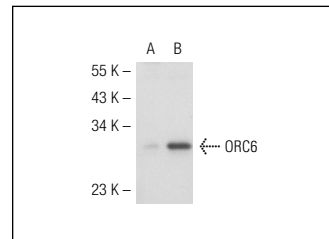
Molecular Weight of ORC6: 30 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, U-2 OS cell lysate: sc-2295 or ORC6 (h2): 293T Lysate: sc-116694

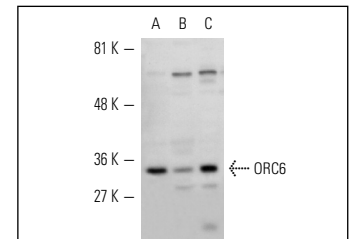
RECOMMENDED SECONDARY REAGENTS

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.

DATA



ORC6 (FL-252): sc-20636. Western blot analysis of ORC6 expression in non-transfected: sc-117752 (A) and human ORC6 transfected: sc-116694 (B) 293T whole cell lysates.



ORC6 (FL-252): sc-20636. Western blot analysis of ORC6 expression in U-2 OS whole cell lysate (A) and SW480 (B) and HeLa (C) nuclear extracts.

STORAGE

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

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 **ORC6 (3A4): sc-32735** or **ORC6 (D-4): sc-390490**, our highly recommended monoclonal alternatives to ORC6 (FL-252).