

#4737 Store at -20°C

# ORC6 (3A4) Rat mAb

100 µl  
 (10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #23594

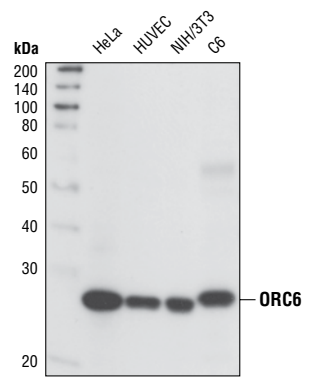
Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP Endogenous	H, M, R, Mk, Hm	28 kDa	Rat IgG2a**

**Background:** The origin recognition complex (ORC) is a highly conserved heterohexameric protein complex that associates with DNA at or near sites of initiation of DNA replication. All six ORC subunits are essential for initiation of DNA replication (1-3), and ORC may be involved in regulation of gene expression in response to stress (4). ORC binding to DNA permits the ordered binding of other proteins such as cdc6 and MCMs to form pre-replication complexes (Pre-RCs). Pre-RCs form between telophase and early G1 phase of the cell cycle and are inactivated at the onset of DNA synthesis, allowing coordinated regulation of DNA replication and cell division (5). Modification of one or more of the six ORC subunits may be responsible for its inactivation during S phase, but the chromatin binding behavior of the ORC subunits during the cell division cycle is still under investigation (6-7).

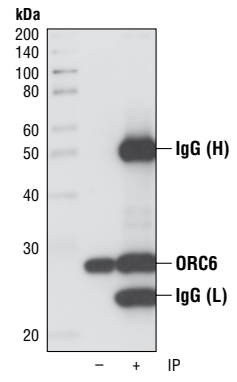
**Specificity/Sensitivity:** ORC6 (3A4) Rat mAb recognizes endogenous levels of total ORC6 protein. The antibody does not cross-react with other ORC subunits.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with full length recombinant human ORC6.

- Background References:**
- (1) Machida, Y.J. et al. (2005) *J. Biol. Chem.* 280, 27624-27630.
  - (2) Baltin, J. et al. (2006) *J. Biol. Chem.* 281, 12428-12435.
  - (3) Gibson, D.G. et al. (2006) *Genes Cells* 11, 557-573.
  - (4) Ramachandran, L. et al. (2006) *FEMS Yeast Res.* 6, 763-776.
  - (5) Rowles, A. and Blow, J.J. (1997) *Curr Opin Genet Dev* 7, 152-157.
  - (6) DePamphilis, M.L. (2003) *Gene* 310, 1-15.
  - (7) McNairn, A.J. et al. (2005) *Exp Cell Res* 308, 345-356.



Western blot analysis of extracts from various cell lines, using ORC6 (3A4) Rat mAb.



Immunoprecipitation of ORC6 from Jurkat cell lysates followed by Western blot, using ORC6 (3A4) Rat mAb.

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rat secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**  
 Western blotting 1:1000  
 Immunoprecipitation 1:50

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.