

#4736 Store at -20C

ORC2 (3G6) Rat mAb


Cell Signaling
TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IF-IC	H Mk	Endogenous	78	Rat IgG2a	#Q13416	4999

Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:50
1:100 - 1:400

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.

Specificity / Sensitivity

ORC2 (3G6) Rat mAb recognizes endogenous levels of total ORC2 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 ORC2 protein.

Background

The origin recognition complex (ORC) is a highly conserved heterohexameric protein complex that associates with DNA at or near initiation of DNA replication sites. 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).

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.
All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.