

# Cre Recombinase (D3U7F) Rabbit mAb



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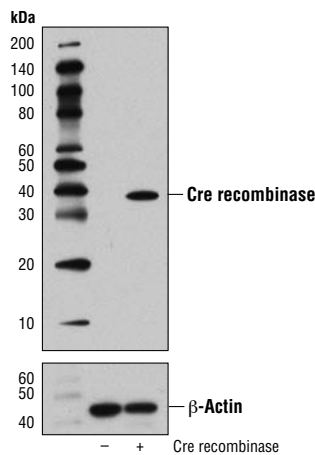
**For Research Use Only. Not For Use In Diagnostic Procedures.**

Applications W, F Transfected	Species Cross-Reactivity* All	Molecular Wt. 37 kDa	Isotype Rabbit IgG**
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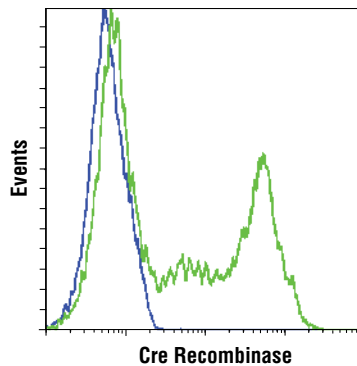
**Background:** Cre recombinase is a bacteriophage-P1 enzyme required for maintenance of the phage genome as a monomeric plasmid in the lysogenic state (1,2). This enzyme mediates a site-specific recombination between two 34 base pair loxP sites. This reaction can be carried out *in vitro*, indicating that it does not require accessory factors (3). The Cre/Lox system has been used for a number of *in vitro* and *in vivo* applications including targeted gene deletions (4) and gene-specific humanized animal models (5). Resolution of the crystal structure of the Cre-Lox complex revealed that two Cre molecules interact with a single Lox site (6).

**Specificity/Sensitivity:** Cre Recombinase (D3U7F) Rabbit mAb recognizes transfected levels of total Cre recombinase protein.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly103 of bacteriophage-P1 Cre recombinase protein.



Western blot analysis of extracts from 293T cells, mock-transfected (-) or transfected with a construct expressing Cre recombinase (+), using Cre Recombinase (D3U7F) Rabbit mAb (upper) and  $\beta$ -Actin (13E5) Rabbit mAb #4970 (lower).



Flow cytometric analysis of COS-7 cells, untransfected (blue) or transfected with Cre recombinase (green), using Cre Recombinase (D3U7F) Rabbit mAb. Anti-rabbit IgG (H+L), F(ab')<sub>2</sub> Fragment (Alexa Fluor® 647 Conjugate) #4414 was used as a secondary antibody.

Entrez Gene ID #2777477  
UniProt ID #P06956

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/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-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

Western blotting 1:1000  
Flow Cytometry 1:400 - 1:1600

**For product 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.**

**Background References:**

- (1) Abremski, K. et al. (1983) *Cell* 32, 1301-11.
- (2) Sternberg, N. et al. (1981) *Cold Spring Harb Symp Quant Biol* 45 Pt 1, 297-309.
- (3) Abremski, K. and Hoess, R. (1984) *J Biol Chem* 259, 1509-14.
- (4) Qin, M. et al. (1994) *Proc Natl Acad Sci USA* 91, 1706-10.
- (5) Lakso, M. et al. (1992) *Proc Natl Acad Sci USA* 89, 6232-6.
- (6) Guo, F. et al. (1997) *Nature* 389, 40-6.

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**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.