

#12830 Store at -20°C

# Cre Recombinase (D3U7F) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, FC-FP	All	Transfected Only	37	Rabbit IgG	#P06956	2777477

## Product Usage Information

### Application

Western Blotting  
Flow Cytometry (Fixed/Permeabilized)

### Dilution

1:1000  
1:400 - 1:1600

## 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

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.

## 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).

## 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 U S A* 91, 1706-10.
5. Lakso, M. et al. (1992) *Proc Natl Acad Sci U S A* 89, 6232-6.
6. Guo, F. et al. (1997) *Nature* 389, 40-6.

## 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 **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

## 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

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