

#5554 Store at -20C

CHOP (D46F1) Rabbit mAb**Cell Signaling**
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3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	M	Endogenous	27	Rabbit IgG	#P35638	1649

Product Usage Information**Application**Western Blotting
Immunoprecipitation**Dilution**1:1000
1:50**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

CHOP (D46F1) Rabbit mAb detects endogenous levels of total CHOP protein.

Species predicted to react based on 100% sequence homology:

Human, Rat

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu159 of human CHOP protein.

Background

CHOP was identified as a C/EBP-homologous protein that inhibits C/EBP and LAP in a dominant-negative manner (1). CHOP expression is induced by certain cellular stresses including starvation and the induced CHOP suppresses cell cycle progression from G1 to S phase (2). Later it was shown that, during ER stress, the level of CHOP expression is elevated and CHOP functions to mediate programmed cell death (3). Studies also found that CHOP mediates the activation of GADD34 and Ero1- α expression during ER stress. GADD34 in turn dephosphorylates phospho-Ser51 of eIF2 α thereby stimulating protein synthesis. Ero1- α promotes oxidative stress inside the endoplasmic reticulum (ER) (4). The role of CHOP in the programmed cell death of ER-stressed cells is correlated with its role promoting protein synthesis and oxidative stress inside the ER (4).

Background References

1. Ron, D. and Habener, J.F. (1992) *Genes Dev* 6, 439-53.
2. Barone, M.V. et al. (1994) *Genes Dev* 8, 453-64.
3. Zinszner, H. et al. (1998) *Genes Dev* 12, 982-95.
4. Marciniak, S.J. et al. (2004) *Genes Dev* 18, 3066-77.

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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key**WB:** Western Blotting **IP:** Immunoprecipitation**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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