Revision 3

Store at +4C

#55080

CHOP (L63F7) Mouse mAb (PE Conjugate)

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

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Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
FC-FP	H M R	Endogenous	Mouse IgG2a	#P35638	1649

Product Usage Information

Application	Dilution
Flow Cytometry (Fixed/Permeabilized)	1:50

Storage

Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

Specificity/Sensitivity

CHOP (L63F7) Mouse mAb (PE Conjugate) detects endogenous levels of total CHOP protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human CHOP protein.

Description

This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometric analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated CHOP (L63F7) Mouse mAb #2895.

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-Lα expression during ER stress. GADD34 in turn dephosphorylates phospho-Ser51 of eIF2α thereby stimulating protein synthesis. Ero1-Lα 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).

Applications Key

FC-FP: Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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