## CHOP (L63F7) Mouse mAb (Alexa Fluor® 647 Conjugate)



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

<b>Applications:</b> FC-FP	Reactivity: H M R	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Mouse IgG2a	UniProt ID: #P35638	Entrez-Gene Id: 1649
Product Usage Information		<b>Application</b> Flow Cytometry (Fixed/P	ermeabilized)		<b>Dilution</b> 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 (Alexa Fluor $^{\text{@}}$ 647 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 Alexa Fluor <sup>®</sup> 647 fluorescent dye 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-La expression during ER stress. GADD34 in turn dephosphorylates phospho-Ser51 of eIF2a thereby stimulating protein synthesis. Ero1-La 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 Refe	erences	1. Ron, D. and Habener, J.F. (1992) <i>Genes Dev</i> 6, 439-53. 2. Barone, M.V. et al. (1994) <i>Genes Dev</i> 8, 453-64. 3. Zinszner, H. et al. (1998) <i>Genes Dev</i> 12, 982-95. 4. Marciniak, S.J. et al. (2004) <i>Genes Dev</i> 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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