

#2940 Store at -20°C

p58IPK (C56E7) Rabbit mAb



✓ 100 µl
(10 Western mini-blots)

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This product is for *in vitro* research use only and is not intended for use in humans or animals.
This product is not intended for use as a therapeutic or in diagnostic procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP Endogenous	H, M, Mk	58 kDa	Rabbit IgG**

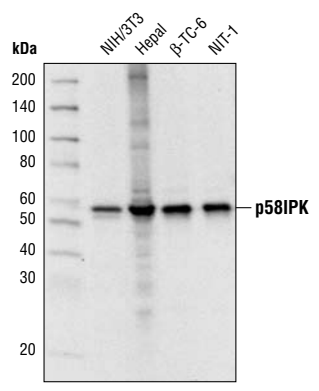
Background: p58IPK is an inhibitor of interferon-induced and double-stranded RNA-activated protein kinase (PKR). It physically interacts with PKR and inhibits its activation and activity (1). Influenza virus activates p58IPK and thus blocks the activity of PKR to repress translation in the infected cells. In the uninfected cells, p58IPK forms a complex with its own inhibitor, HSP40, and is kept in an inactive state (2). ER stress induces the expression of p58IPK mediated by ATF6 (3,4). The induced p58IPK negatively regulates Perk activity, inhibits eIF2 α phosphorylation and suppresses the activation of expression of downstream ER-responsive genes ATF4 and GADD153 (4). More recently, p58IPK has been shown to associate with the lumen of the endoplasmic reticulum (ER) where it is believed to serve as a cochaperone for BiP (5).

Specificity/Sensitivity: p58IPK (C56E7) Rabbit mAb detects endogenous levels of total p58IPK protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide (KLH-coupled) derived from the sequence of human p58IPK.

Background References:

- (1) Gale, M. et al. (1996) *Mol Cell Biol* 16, 4172–81.
- (2) Melville, M.W. et al. (1997) *Proc Natl Acad Sci USA* 94, 97–102.
- (3) Yan, W. et al. (2002) *Proc Natl Acad Sci USA* 99, 15920–5.
- (4) van Huizen, R. et al. (2003) *J Biol Chem* 278, 15558–64.
- (5) Rutkowski, D.T. et al. (2007) *Mol Biol Cell* 18, 3681–91.



Western blot analysis of extracts from various cell types using p58IPK (C56E7) Rabbit mAb.

Entrez-Gene ID # 5611
Swiss-Prot Acc. # Q13217

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.

*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
Immunoprecipitation	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Companion Products:

- BiP (C50B12) Rabbit mAb #3177
- IRE1 α (14C10) Rabbit mAb #3294
- Phospho-eIF2 α (Ser51) Antibody #9721
- BiP Antibody #3183
- Calnexin (C5C9) Rabbit mAb #2679
- Phototope[®]-HRP Western Blot Detection System, Anti-rabbit IgG, HRP-linked Antibody #7071
- Anti-rabbit IgG, HRP-linked Antibody #7074
- Prestained Protein Marker, Broad Range (Premixed Format) #7720
- Biotinylated Protein Ladder Detection Pack #7727
- 20X LumiGLO[®] Reagent and 20X Peroxide #7003

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For Western blots, incubate membrane with diluted antibody in 5% w/v BSA, 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—zebra fish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.