

#2940 Store at -20°C

## p58IPK (C56E7) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M Mk	Endogenous	58	Rabbit IgG	#Q13217	5611

### 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

p58IPK (C56E7) Rabbit mAb detects endogenous levels of total p58IPK protein.

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp127 of human p58IPK.

### 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 eIF2α 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).

### 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.

### 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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