Revision 1

Store at -20C

#13713

CIRBP Antibody

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	18	Rabbit	#Q14011	1153

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

CIRBP Antibody recognizes endogenous levels of total CIRBP protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly150 of human CIRBP protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Cold-induced RNA-binding protein (CIRBP) is a 172-residue, multifunctional sensor protein that was first isolated as a protein induced in mouse fibroblasts cultured at 32°C (1). Conversely, CIRBP expression decreases in cells or tissues subjected to increased temperature (2). The CIRBP protein is composed of an amino-terminal RNA-binding domain and a carboxyl-terminal, glycine-rich domain (1). Stressful stimuli, such as hypoxia, heat shock, osmotic shock, or oxidative conditions, lead to translocation of CIRBP from the nucleus to cytoplasmic stress granules through a mechanism involving CIRBP methylation-dependent nuclear export (3). CIRBP plays a role in regulating apoptosis and preserving the stemness of neural stem cells at moderately low temperatures (4). Research studies demonstrate that CIRBP contributes to the regulation of circadian rhythm through post-translational modulation of CLOCK expression (5).

Background References

1. Nishiyama, H. et al. (1997) *J Cell Biol* 137, 899-908.
2. Nishiyama, H. et al. (1998) *Am J Pathol* 152, 289-96.
3. De Leeuw, F. et al. (2007) *Exp Cell Res* 313, 4130-44.
4. Saito, K. et al. (2010) *Brain Res* 1358, 20-9.
5. Morf, J. et al. (2012) *Science* 338, 379-83.

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

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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Limited Uses

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