Revision 4

Store at -20C

#34642

Clusterin (D7N2K) XP® Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-P	H	Endogenous	35-42, 65, 75	Rabbit IgG	#P10909	1191

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunohistochemistry (Paraffin)	1:400

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.

For a carrier free (BSA and azide free) version of this product see product #83411.

Specificity/Sensitivity

Clusterin (D7N2K) XP® Rabbit mAb recognizes endogenous levels of total Clusterin protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser396 of human Clusterin protein.

Background

Clusterin (CLU, apolipoprotein J) is a multifunctional glycoprotein that is expressed ubiquitously in most tissues. Clusterin functions as a secreted chaperone protein that interacts with and stabilizes stress-induced proteins to prevent their precipitation (1,2). Research studies show that clusterin plays a protective role in Alzheimer's disease by sequestering amyloid β(1-40) peptides to form long-lived, stable complexes, which prevents amyloid fibril formation (3-5). In addition to the secreted protein, several intracellular isoforms are localized to the nucleus, mitochondria, cytoplasm, and ER. The subcellular distribution of these multiple isoforms leads to the diversity of clusterin functions. Additional studies report that clusterin is involved in membrane recycling, cell adhesion, cell proliferation, apoptosis, and tumor survival (6-9). The clusterin precursor is post-translationally cleaved into the mature clusterin α and clusterin β forms. Clusterin α and β chains create a heterodimer through formation of disulfide bonds (10).

Background References

1. Poon, S. et al. (2000) *Biochemistry* 39, 15953-60.
2. Poon, S. et al. (2002) *FEBS Lett* 513, 259-66.
3. Yerbury, J.J. et al. (2007) *FASEB J* 21, 2312-22.
4. Narayan, P. et al. (2012) *Nat Struct Mol Biol* 19, 79-83.
5. Desikan, R.S. et al. (2014) *JAMA Neurol* 71, 180-7.
6. Rosenberg, M.E. and Silkensen, J. (1995) *Int J Biochem Cell Biol* 27, 633-45.
7. Wilson, M.R. and Easterbrook-Smith, S.B. (2000) *Trends Biochem Sci* 25, 95-8.
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9. Shannan, B. et al. (2006) *Cell Death Differ* 13, 12-9.
10. de Silva, H.V. et al. (1990) *Biochemistry* 29, 5380-9.

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

W: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human

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