Store at -20°C

#61137

Lysozyme C-1/2 Antibody

Cell Signaling TECHNOLOGY®

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New 07/19

Entrez-Gene ID #17110, 17105
UniProt ID #P17897, P08905

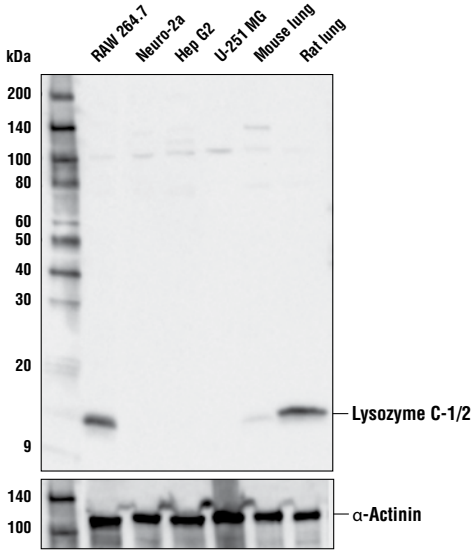
For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	M, R	17 kDa	Rabbit**

Background: Lysozymes are secreted proteins that have bacteriolytic function which are critical for mammalian innate immune function. All lysozymes function to defend host animals from microbial infection by hydrolyzing bacterial cell wall peptidoglycan (1). Conventional-type lysozymes (Lysozyme C) are one of three types of lysozymes; each family member is categorized based on amino acid sequence and biochemical properties. Lysozyme C is expressed in mammalian secretions like tears, urine, and milk, but are also expressed by phagocytes such as macrophages, neutrophils, and dendritic cells. Lysozyme C is encoded in humans by a single *LYZ* gene. The mouse orthologs of Lysozyme C are encoded by two genes, *Lyz1* and *Lyz2*, which encode Lysozyme C-1 and Lysozyme C-2 (Lysozyme C-1/2). Interestingly, *Lyz2* is upregulated in microglia of Alzheimer's disease mouse model brains that have been stimulated by specific forms of activity (2). *Lyz1* and *Lyz2* are uniquely expressed in microglia, and increased *Lyz2* correlates with microglia-mediated β-amyloid (Aβ) clearance, suggesting that Lysozyme C-1/2 may directly contribute to microglial-clearance of Aβ or act as a marker for certain microglial activity states in the brain (3).

Specificity/Sensitivity: Lysozyme C-1/2 Antibody recognizes endogenous levels of total mouse and rat Lysozyme C-1 and Lysozyme C-2 proteins.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala60 of mouse Lysozyme C-1/2 protein. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from various cell lines and tissues using Lysozyme C-1/2 Antibody (upper) and α-Actinin (D6F6) XP® Rabbit mAb #6487 (lower).

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.*

***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

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

Background References:

(1) Ragland, S.A. and Criss, A.K. (2017) *PLoS Pathog* 13, e1006512.

(2) Iaccarino, H.F. et al. (2016) *Nature* 540, 230-5.

(3) Ayata, P. et al. (2018) *Nat Neurosci* 21, 1049-60.

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.

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Applications: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide **Species Cross-Reactivity:** **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **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 **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.