

Lysozyme C-1/2 Antibody



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	M R	Endogenous	17	Rabbit	#P08905, #P17897	17105, 17110

Product Usage Information

Application

Western Blotting

Dilution

1:1000

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

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 peptide affinity chromatography.

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 the hydrolysis of 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 is 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 (A β) clearance, suggesting that Lysozyme C-1/2 may directly contribute to microglial-clearance of A β or act as a marker for certain microglial activity states in the brain (3).

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.

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

Cross-Reactivity Key

M: Mouse **R:** Rat

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