

Store at  
-20°C  
#94019**15-PGDH/HPGD (E9H7W) Rabbit mAb**

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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, W-S, IP	H	Endogenous	24	Rabbit IgG	#P15428	3248
Product Usage Information	Application		Dilution			
	Western Blotting		1:1000			
	Simple Western™		1:50 - 1:250			
	Immunoprecipitation		1:200			
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. <i>Do not aliquot the antibody.</i>					
Specificity/Sensitivity	15-PGDH/HPGD (E9H7W) Rabbit mAb recognizes endogenous levels of total 15-PGDH/HPGD protein.					
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human 15-PGDH/HPGD protein.					
Background	15-hydroxyprostaglandin dehydrogenase (15-PGDH or HPGD) catalyzes the rate-limiting step of prostaglandin E2 (PGE2) degradation (1). Its inhibition was shown to potentiate tissue regeneration in various mouse organs (2). Increased 15-PGDH/HPGD levels are a hallmark of aged skeletal muscles. 15-PGDH/HPGD inhibition in aged mouse muscles leads to elevated PGE2 levels and boosts mitochondrial biogenesis and function, enhancing muscle mass and strength (3). Studies show that loss of 15-PGDH/HPGD also leads to increased hematopoietic output and enhanced gastrointestinal fitness in aged mice, indicating a critical role of this enzyme in the regulation of tissue regeneration during aging (1). In addition, PPARγ upregulates 15-PGDH/HPGD expression in the regulatory T cells in visceral adipose tissue, suppressing conventional T cell activation and proliferation (4).					
Background References	1. Ho, W.J. et al. (2022) <i>PLoS One</i> 17, e0268787. 2. Zhang, Y. et al. (2015) <i>Science</i> 348, aaa2340. 3. Palla, A.R. et al. (2021) <i>Science</i> 371, eabc8059. doi: 10.1126/science.abc8059. 4. Schmidleithner, L. et al. (2019) <i>Immunity</i> 50, 1232-1248.e14.					

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	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.
<b>Applications Key</b>	<b>W:</b> Western Blotting <b>W-S:</b> Simple Western™ <b>IP:</b> Immunoprecipitation
<b>Cross-Reactivity Key</b>	<b>H:</b> Human
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