

#25919 Store at -20C

# Myoglobin (D2F5X) Rabbit mAb

**Cell Signaling**  
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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:
WB, IF-F	H M	Endogenous	17	Rabbit IgG	#P02144	4151

<b>Product Usage Information</b>	<b>Application</b>	<b>Dilution</b>
	Western Blotting	1:1000
	Immunofluorescence (Frozen)	1:400
<b>Storage</b>	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.	
<b>Specificity / Sensitivity</b>	Myoglobin (D2F5X) Rabbit mAb recognizes endogenous levels of total myoglobin protein.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu50 of human myoglobin protein.	
<b>Background</b>	Myoglobin (MB) is an oxygen-binding protein that contains one polypeptide chain and one heme group. It is expressed in vertebrate skeletal and cardiac muscles where it plays an essential role in the storage and transport of oxygen to mitochondria. Reversible oxygen binding occurs by a linkage with the imidazole nitrogen of the 91st histidine residue in the myoglobin chain. Research studies indicate that the blockade of myoglobin in isolated cardiac myocytes mimics hypoxia when electrically stimulated for paced contractions (1). During fetal development, myoglobin is required to support cardiac function (2). Diving mammals are known to have high concentrations of myoglobin in their blood, which may contribute to their ability to endure long periods of oxygen deprivation during deep dives (3).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>White, R.L. and Wittenberg, B.A. (1993) <i>Biophys J</i> 65, 196-204.</li> <li>Meeson, A.P. et al. (2001) <i>Circ Res</i> 88, 713-20.</li> <li>Davis, R.W. (2014) <i>J Comp Physiol B</i> 184, 23-53.</li> </ol>	

<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>	<b>IMPORTANT:</b> 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.
<b>Applications Key</b>	<b>WB:</b> Western Blotting <b>IF-F:</b> Immunofluorescence (Frozen)
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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