

#25919 Store at -20°C

Myoglobin (D2F5X) 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: |
|---------------|-------------|--------------|-----------|-----------------|-------------|-----------------|
| WB, IF-F | H M | Endogenous | 17 | Rabbit IgG | #P02144 | 4151 |

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Immunofluorescence (Frozen)

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.

Specificity / Sensitivity

Myoglobin (D2F5X) Rabbit mAb recognizes endogenous levels of total myoglobin protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu50 of human myoglobin protein.

Background

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).

Background References

1. White, R.L. and Wittenberg, B.A. (1993) *Biophys J* 65, 196-204.
2. Meeson, A.P. et al. (2001) *Circ Res* 88, 713-20.
3. Davis, R.W. (2014) *J Comp Physiol B* 184, 23-53.

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

WB: Western Blotting **IF-F:** Immunofluorescence (Frozen)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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