



Anti-Myoglobin monoclonal antibody, clone NM15DN112 (DCABH-20051)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	MAb to Myoglobin Monoclonal Antibody to Human Myoglobin
Antigen Description	<p>Myoglobin is an iron- and oxygen-binding protein found in the muscle tissue of vertebrates in general and in almost all mammals. It is related to hemoglobin, which is the iron- and oxygen-binding protein in blood, specifically in the red blood cells. Myoglobin is only found in the bloodstream after muscle injury. It is an abnormal finding, and can be diagnostically relevant when found in blood.</p> <p>Myoglobin is the primary oxygen-carrying pigment of muscle tissues. High concentrations of myoglobin in muscle cells allow organisms to hold their breath for a longer period of time. Diving mammals such as whales and seals have muscles with particularly high abundance of myoglobin. Myoglobin is found in Type I muscle, Type II A and Type II B, but most texts consider myoglobin not to be found in smooth muscle.</p> <p>Myoglobin was the first protein to have its three-dimensional structure revealed by X-ray crystallography. This achievement was reported in 1958 by John Kendrew and associates. For this discovery, John Kendrew shared the 1962 Nobel Prize in chemistry with Max Perutz. Despite being one of the most studied proteins in biology, its physiological function is not yet conclusively established: mice genetically engineered to lack myoglobin are viable, but showed a 30% reduction in volume of blood being pumped by the heart during a contraction. They adapted to this deficiency through natural reactions to inadequate oxygen supply (hypoxia) and a widening of blood vessels (vasodilation). In humans myoglobin is encoded by the MB gene.</p>
Specificity	Myoglobin
Target	Myoglobin
Immunogen	Purified Human Myoglobin.
Isotype	IgG1

Source/Host	Mouse
Species Reactivity	Human
Clone	NM15DN112
Affinity Constant	Not determined
Purification	Protein G chromatography
Conjugate	Unconjugated
Applications	ELISA, CLIA, RIA, IHC, WB
Format	Purified, Liquid
Concentration	2mg/ml
Size	1 mg
Buffer	10mM PBS, pH 7.4
Preservative	None
Storage	Short term store at 2-8°C. Long term store at -20°C. Avoid multiple/freeze thaw cycles.

GENE INFORMATION

Gene Name	MB myoglobin [Homo sapiens]
Official Symbol	MB
Synonyms	MB; myoglobin; PVALB; MGC13548;
Entrez Gene ID	4151
Protein Refseq	NP_005359
UniProt ID	P02144
Chromosome Location	22q13.1
Function	heme binding; metal ion binding; oxygen binding; oxygen transporter activity;