

# Immunotag™ MYL3 Monoclonal Antibody

| Antibody Specification |                                                                                                                                                                                                                                                                                                                                                               |
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| Catalog No.            | ITM0460                                                                                                                                                                                                                                                                                                                                                       |
| Product Description    | Immunotag™ MYL3 Monoclonal Antibody                                                                                                                                                                                                                                                                                                                           |
| Size                   | 50 µg, 100 µg                                                                                                                                                                                                                                                                                                                                                 |
| Conjugation            | HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647                                                                                                                                                                                                                                 |
| IMPORTANT NOTE         | This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.                                                                                                                                                                                            |
| Target Protein         | MYL3                                                                                                                                                                                                                                                                                                                                                          |
| Clonality              | Monoclonal                                                                                                                                                                                                                                                                                                                                                    |
| Storage/Stability      | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                  |
| Application            | WB,IHC-p,ELISA                                                                                                                                                                                                                                                                                                                                                |
| Recommended Dilution   | Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.                                                                                                                                                                                                                                     |
| Concentration          | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                       |
| Reactive Species       | Human                                                                                                                                                                                                                                                                                                                                                         |
| Host Species           | Mouse                                                                                                                                                                                                                                                                                                                                                         |
| Immunogen              | Purified recombinant fragment of MYL3 expressed in E. Coli.                                                                                                                                                                                                                                                                                                   |
| Specificity            | MYL3 Monoclonal Antibody detects endogenous levels of MYL3 protein.                                                                                                                                                                                                                                                                                           |
| Purification           | Affinity purification                                                                                                                                                                                                                                                                                                                                         |
| Form                   | Ascitic fluid containing 0.03% sodium azide.                                                                                                                                                                                                                                                                                                                  |
| Gene Name              | MYL3                                                                                                                                                                                                                                                                                                                                                          |
| Accession No.          | P08590 P09542                                                                                                                                                                                                                                                                                                                                                 |
| Alternate Names        | MYL3; Myosin light chain 3; Cardiac myosin light chain 1; CMLC1; Myosin light chain 1; slow-twitch muscle B/ventricular isoform; MLC1SB; Ventricular/slow twitch myosin alkali light chain                                                                                                                                                                    |
| Description            | myosin light chain 3(MYL3) Homo sapiens MYL3 encodes myosin light chain 3, an alkali light chain also referred to in the literature as both the ventricular isoform and the slow skeletal muscle isoform. Mutations in MYL3 have been identified as a cause of mid-left ventricular chamber type hypertrophic cardiomyopathy. [provided by RefSeq, Jul 2008], |

## Antibody Specification

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| Cell Pathway/<br>Category   | Cardiac muscle contraction,Hypertrophic cardiomyopathy (HCM),Dilated cardiomyopathy,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Protein<br>Expression       | Heart,Skeletal muscle,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Subcellular<br>Localization | cytosol,muscle myosin complex,myosin complex,sarcomere,A band,I band,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Protein Function            | disease:Defects in MYL3 are the cause of cardiomyopathy familial hypertrophic type 8 (CMH8) [MIM:608751]. Familial hypertrophic cardiomyopathy is a hereditary heart disorder characterized by ventricular hypertrophy, which is usually asymmetric and often involves the interventricular septum. The symptoms include dyspnea, syncope, collapse, palpitations, and chest pain. They can be readily provoked by exercise. The disorder has inter- and intrafamilial variability ranging from benign to malignant forms with high risk of cardiac failure and sudden cardiac death. CMH8 inheritance can be autosomal dominant or recessive.,disease:Defects in MYL3 are the cause of cardiomyopathy hypertrophic with mid-left ventricular chamber type 1 (MVC1) [MIM:608751]. MVC1 is a very rare variant of familial hypertrophic cardiomyopathy, characterized by mid-left ventricular chamber thickening.,function:Regulatory light chain of myosin. Does not bind calcium.,PTM:The N-terminus is blocked.,similarity:Contains 3 EF-hand domains.,subunit:Myosin is an hexamer of 2 heavy chains and 4 light chains., |
| Usage                       | For Research Use Only! Not for diagnostic or therapeutic procedures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |