

**Rabbit Anti-Myogenin (MyF4) [MD403R]: RM0072, RM0072RTU7**

**Intended Use:** For Research Use Only

**Description:** Myogenic factors are transcription factors consisting of an amino acid-rich region and a helix-loop-helix (HLH) structure, which can promote muscle development and maintain muscle-specific gene expression by transactivation. Myogenin, one of the myogenic regulatory factors, plays a key role in determining the commitment and differentiation of primitive mesenchymal cells into skeletal muscle. The expression of Myogenin is restricted to cells of skeletal muscle origin, but it is not detected in adult skeletal muscles. It is therefore considered to be an extremely reliable and specific marker for diagnosing rhabdomyosarcomas.

**Specifications**

|               |                                                                                          |
|---------------|------------------------------------------------------------------------------------------|
| Clone:        | MD403R                                                                                   |
| Source:       | Rabbit                                                                                   |
| Isotype:      | IgG                                                                                      |
| Reactivity:   | Human                                                                                    |
| Immunogen:    | Recombinant full-length human myogenin protein                                           |
| Localization: | Nucleus                                                                                  |
| Formulation:  | Antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN <sub>3</sub> ) |
| Storage:      | Store at 2°- 8°C                                                                         |
| Applications: | IHC                                                                                      |
| Package:      |                                                                                          |

| Description                  | Catalog No. | Size |
|------------------------------|-------------|------|
| Myogenin (MyF4) Concentrated | RM0072      | 1 ml |
| Myogenin (MyF4) Prediluted   | RM0072RTU7  | 7 ml |

**IHC Procedure\***

|                           |                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------|
| Positive Control Tissue:  | Skeletal muscle, rhabdomyosarcoma                                                   |
| Concentrated Dilution:    | 25-200                                                                              |
| Pretreatment:             | Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C |
| Incubation Time and Temp: | 30-60 minutes @ RT                                                                  |
| Detection:                | Refer to the detection system manual                                                |

\* Result should be confirmed by an established diagnostic procedure.

**References:**

1. Evaluation of Myogenin and MyoD1 as Immunohistochemical Markers of Canine Rhabdomyosarcoma. Joanne L. Veterinary Pathology. Volume 58, Issue 3, May Pages 516-526, 2021.
2. Immunohistochemical Characterization of Sarcomas in Trp53+/- Haploinsufficient Mice. M. P. Jokinen, D. L. Morgan, et al., Toxicologic Pathology Volume 45, Issue 6, August Pages 774-785, 2017.
3. The Role of Immunohistochemistry in Rhabdomyosarcoma Diagnosis Using Tissue Microarray Technology and a Xenograft Model. Machado I, et al. Fetal Pediatr Pathol. 34(5):271-81, 2015.
4. The Expression of c-Myb Correlates with the Levels of Rhabdomyosarcoma-specific Marker Myogenin. Kaspar P, et al. Sci Rep. Oct 14;5:15090, 2015.
5. Strong immunostaining for myogenin in rhabdomyosarcoma is significantly associated with tumors of the alveolar subclass. P Dias 1, et al., Am J Pathol. Feb;156(2):399-408, 2000.