

Datasheet for ABIN4912141

anti-Myogenin antibody



Overview

| Overview | |
|-------------------|---|
| Quantity: | 100 μL |
| Target: | Myogenin (MYOG) |
| Reactivity: | Mouse |
| Host: | Mouse |
| Clonality: | Monoclonal |
| Conjugate: | This Myogenin antibody is un-conjugated |
| Application: | Western Blotting (WB), Flow Cytometry (FACS) |
| Product Details | |
| Immunogen: | This MYOG antibody is generated from mice immunized with a KLH conjugated synthetic |
| | peptide between 30-58 amino acids from the N-terminal region of human MYOG. |
| Clone: | 4C1 |
| Isotype: | IgG1 |
| Cross-Reactivity: | Mouse |
| Purification: | Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide. |
| Target Details | |
| Target: | Myogenin (MYOG) |
| Alternative Name: | MYOG (MYOG Products) |
| Background: | Synonyms: MYF4, myf-4, bHLHc3, Myogenin, Class C basic helix-loop-helix protein 3, Myogenic |
| | |

factor 4, MYOG

Background: Acts as a transcriptional activator that promotes transcription of muscle-specific target genes and plays a role in muscle differentiation, cell cycle exit and muscle atrophy. Essential for the development of functional embryonic skeletal fiber muscle differentiation. However is dispensable for postnatal skeletal muscle growth, phosphorylation by CAMK2G inhibits its transcriptional activity in respons to muscle activity. Required for the recruitment of the FACT complex to muscle-specific promoter regions, thus promoting gene expression initiation. During terminal myoblast differentiation, plays a role as a strong activator of transcription at loci with an open chromatin structure previously initiated by MYOD1. Together with MYF5 and MYOD1, co-occupies muscle-specific gene promoter core regions during myogenesis. Cooperates also with myocyte-specific enhancer factor MEF2D and BRG1dependent recruitment of SWI/SNF chromatin-remodeling enzymes to alter chromatin structure at myogenic late gene promoters. Facilitates cell cycle exit during terminal muscle differentiation through the up-regulation of miR-20a expression, which in turn represses genes involved in cell cycle progression. Binds to the E-box containing (E1) promoter region of the miR-20a gene. Plays also a role in preventing reversal of muscle cell differentiation. Contributes to the atrophy-related gene expression in adult denervated muscles. Induces fibroblasts to differentiate into myoblasts (By similarity).

Gene ID: 4656

UniProt: P15173

Pathways: Regulation of Muscle Cell Differentiation, Skeletal Muscle Fiber Development

Application Details

Application Notes: WB 1:300-5000 FCM 1:20-100

Restrictions: For Research Use only

Handling

| Format: | Liquid |
|----------------|---|
| Concentration: | 0.5 μg/μL |
| Buffer: | 0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol. |
| Preservative: | ProClin |

Handling

| Precaution of Use: | This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only. |
|--------------------|--|
| Storage: | -20 °C |
| Storage Comment: | Store at -20°C for 12 months. |
| Expiry Date: | 12 months |