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musculin (h): 293T Lysate: sc-374978

BACKGROUND

Differentiation of myogenic cells is regulated by multiple positively and negatively acting factors. One well characterized family of helix-loop-helix (HLH) proteins, known to play an important role in the regulation of muscle cell development, includes MyoD, myogenin and musculin (also designated MyoR). Members of this group of transcription factors form heterodimers with products of a more widely expressed family of bHLH genes, the E family, which consists of at least three distinct genes: E2A, IF2 and HEB. MyoD-E or musculin-E heterodimers bind avidly to consensus E box motifs, which are functionally important elements in the promoter regions of many muscle-specific terminal differentiation genes. MyoD complexes potently induce transcriptional activation, while musculin complexes bind adjacent to MyoD DNA-binding regions to represses MyoD activity, which then results in the delayed expression of muscle-specific genes. Musculin is highly expressed in undifferentiated and proliferating myoblasts in culture, and its expression is down regulated during myogenesis and at the onset of terminal differentiation.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MSC (human) mapping to 8q13.3.

PRODUCT

musculin (h): 293T Lysate represents a lysate of human musculin transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

musculin (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive musculin antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.