

Technical Data Sheet

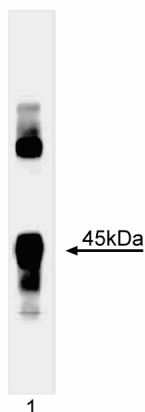
Purified Mouse Anti-MyoD**Product Information**

Material Number:	554130
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	MoAb 5.8A
Immunogen:	Recombinant Mouse MyoD
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat, Chicken
Target MW:	45/48 kDa
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

MyoD is a member of a family of myogenic basic helix-loop-helix (bHLH) transcription factors that includes Myf-5, myogenin, and MRF4 (also known as herculin or Myf-6). Members of this family, expressed exclusively in skeletal muscle, play a key role in myogenesis by activating muscle-specific genes in response to extracellular growth factors. Transfection of MyoD and other family members into non-muscle cells has been shown to either convert these cells to myogenic cells or to transcriptionally activate a set of otherwise unexpressed muscle-specific genes. Members of this family have distinct roles in muscle development; for example, MyoD and Myf-5 act early during myeloid development, whereas myogenin acts at a later point during myoblast differentiation. The expression and activity of MyoD has been shown to involve the mitogen-activated protein kinase (MAPK) cascade.

This antibody is routinely tested by western blot analysis. The epitope for MoAb 5.8A has been mapped to amino acids 180-189 of mouse MyoD. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of MyoD. Lysate from Rh30 rhabdomyosarcoma cells was probed with anti-MyoD (clone MoAb 5.8A, Cat. No. 554130). MyoD is identified as an ~45 kDa band.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at 4° C.

Application Notes**Application**

Western blot	Routinely Tested
Immunohistochemistry-frozen	Tested During Development

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Applications include Western blot analysis (1-2 µg/ml) and immunohistochemical staining of paraformaldehyde-fixed, frozen tissue sections and myogenic cell lines (titrate between 0.5-5 µg/ml). RD Rhabdomyosarcoma cells (ATCC CCL-136) and normal myoblasts are suggested as a positive control for these applications. Cell lines which are suggested as negative controls include: Ewing's sarcoma cells RD-ES (ATCC HBT-166), neuroblastoma cells SK-N-SH (ATCC HTB-11), and Burkitts lymphoma cells EB2 (ATCC HTB-61).

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

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Dias P, Parham DM, Shapiro DN, Tapscott SJ, Houghton PJ. Monoclonal antibodies to the myogenic regulatory protein MyoD1: epitope mapping and diagnostic utility. *Cancer Res*. 1992; 52(23):6431-6439.(Clone-specific)
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