Technical Data Sheet

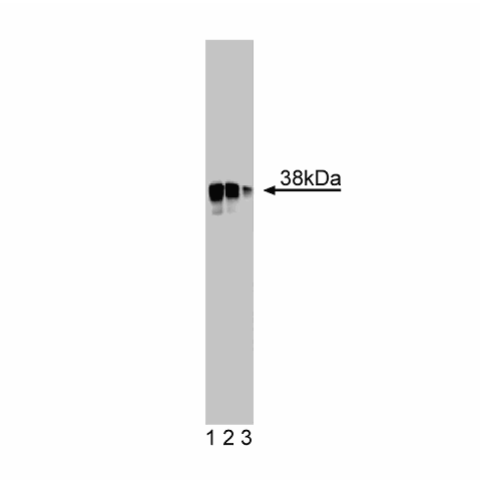
Purified Mouse Anti-Melusin

Product Information

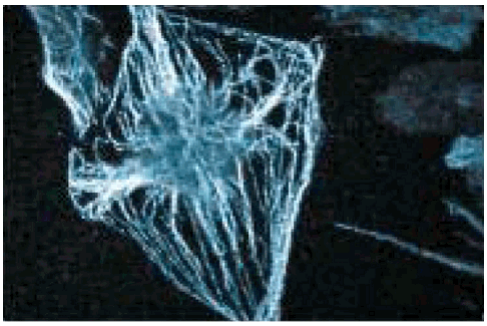
Material Number:	**611894**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	42/Melusin
Immunogen:	Mouse Melusin aa. 61-258
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Human, Mouse
Target MW:	38 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Integrins are membrane receptors that mediate cell-cell or cell-matrix adhesion. All integrins are transmembrane heterodimers composed of α and β subunits that are connected to the cytoskeleton. In mammals, at least 17 α subunits and 8 β subunits have been identified, and these proteins can heterodimerize to form at least 22 different receptors. The β1 subgroup of the integrin receptors consists of at least 6 different dimer combinations. A variety of signal transduction proteins have been shown to bind the cytoplamic domain of β1 integrins. These include melusin, ILK, ICAP, and RACK1. Melusin is expressed preferentially in muscle and heart, and contains putative SH3 domain binding motifs in the N-terminal region, two putative SH2 binding sites, and a C-terminal acidic amino acid stretch (CAAS) similar to the calcium binding proteins, calreticulin and calsequestrin. In muscle, melusin protein is localized in two rows flanking α-actinin at Z-lines, and melusin mRNA is upregulated during neonatal development. Differentiation of C2C12 murine myogenic cell line by serum starvation also upregulates melusin protein and mRNA. Thus, melusin may be an important signal transducer for β1 integrins during muscle development.



Western blot analysis of Melusin on rat muscle lysate. *Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of anti-Melusin.*



Immunofluorescent staining of L6 cells.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml.

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Suggested Companion Products

Catalog Number	Name	Size	Clone
611469	Rat Muscle Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Brancaccio M, Guazzone S, Menini N, et al. Melusin is a new muscle-specific interactor for beta(1) integrin cytoplasmic domain. *J Biol Chem.* 1999; 274(41):29282-29288.(Biology)