

MONOCLONAL ANTI-NEBULIN CLONE NB2
Mouse Ascites Fluid

 Product No. **N 9891**

Monoclonal Anti-Nebulin (mouse IgG1 isotype) is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from an immunized mouse. Purified chicken breast muscle nebulin was used as the immunogen. The isotype is determined using Sigma ImmunoTypeTM Kit (Sigma Stock No. ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Sigma Stock No. ISO-2). The product is provided as ascites fluid containing 0.1% sodium azide (see MSDS)* as a preservative.

Monoclonal Anti-Nebulin localizes nebulin by immunoblotting using chicken skeletal muscle extracts. In an immunoblot using total extracts of chicken breast muscle, the antibody is specific for the 500 kD nebulin band. It does not cross react with titin. By indirect immunofluorescence, the antibody shows a typical striated staining pattern of frozen sections of chicken skeletal muscle. It stains within the I-band and shows a decoration line at a distance of 0.22 μ m from the z-line in electron micrographs. Monoclonal Anti-Nebulin reacts only with skeletal muscle, not with smooth muscle or different non-muscle tissues and cultured cells. This antibody has been characterized by immunoblotting, immunofluorescence and immunoelectron microscopy. It has been determined to have a broad cross-species reactivity. The following is a summary of the antibody reactivity on various muscles in immunofluorescence using frozen section^a, isolated myofibrils^b, or immunoblotting^c:

Fish skeletal muscle ^a (Torpedo spec.)	+
Toad skeletal muscle ^a (Bufo marinus)	+
Salamander skeletal muscle ^c (<i>Ambystoma tigrina</i>)	+
Salamander heart muscle ^a	-
Alligator skeletal muscle ^a (<i>Alligator mississippiensis</i>)	+
Pigeon skeletal muscle ^{b,c}	+

Chicken skeletal muscle ^{b,c}	+
Chicken heart muscle ^c	-
Chicken gizzard smooth muscle ^c	-
Mouse skeletal muscle ^a	+
Rat skeletal muscle ^{b,c}	+
Rat heart muscle ^a	-
Rat rhabdomyosarcoma ^a	+
Rabbit skeletal muscle ^b	+
Bovine heart muscle ^a	-
Pig skeletal muscle ^c	+
Human skeletal muscle ^a	+

Nebulin is a high molecular weight protein (500-800 kD), localized at the N2-line of skeletal muscle myofibrils. It exhibits an elastic stretch dependence, as it maintains the same proportional distance between the z-line and the m-line as the sarcomere is stretched.

Precautions

*Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Product Profile

A working dilution of at least 1:400 was determined by indirect immunofluorescent staining of frozen skeletal muscle tissue sections.

In order to obtain best results, it is recommended that each individual user determine their optimum working dilution by titration assay.

Storage

For continuous use, store at 2-8 °C for up to one month. For extended storage, solution may be frozen in working aliquots. Repeated freezing and thawing is **not** recommended. If slight turbidity occurs upon prolonged storage, clarify by centrifugation before use.

Pcs11/00

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications.

Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply.

Please see reverse side of the invoice or packing slip.