

ACTN1 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant ACTN1. Catalog # AT1032a

Product Information

Application	WB
Primary Accession	<u>P12814</u>
Other Accession	<u>NM_001102</u>
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG3 Kappa
Clone Names	3F1
Calculated MW	103058

Additional Information

Gene ID	87
Other Names	Alpha-actinin-1, Alpha-actinin cytoskeletal isoform, F-actin cross-linking protein, Non-muscle alpha-actinin-1, ACTN1
Target/Specificity	ACTN1 (NP_001093, 543 a.a. ~ 639 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	ACTN1 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

Alpha actinins belong to the spectrin gene superfamily which represents a diverse group of cytoskeletal proteins, including the alpha and beta spectrins and dystrophins. Alpha actinin is an actin-binding protein with multiple roles in different cell types. In nonmuscle cells, the cytoskeletal isoform is found along microfilament bundles and adherens-type junctions, where it is involved in binding actin to the membrane. In contrast, skeletal, cardiac, and smooth muscle isoforms are localized to the Z-disc and analogous dense bodies, where they help anchor the myofibrillar actin filaments. This gene encodes a nonmuscle, cytoskeletal, alpha actinin isoform and maps to the same site as the structurally similar erythroid beta spectrin gene. Three transcript variants encoding different isoforms have been found for this gene.

References

1.Rab13 Small G Protein and Junctional Rab13-binding Protein (JRAB) Orchestrate Actin Cytoskeletal Organization during Epithelial Junctional Development.Sakane A, Abdallah AA, Nakano K, Honda K, Ikeda W, Nishikawa Y, Matsumoto M, Matsushita N, Kitamura T, Sasaki T.J Biol Chem. 2012 Dec 14;287(51):42455-68. doi: 10.1074/jbc.M112.383653. Epub 2012 Oct 24.2.alpha-actinin 1 and alpha-actinin 4: Contrasting roles in the survival, motility, and rhoa signaling of astrocytoma cells.Quick Q, Skalli O.Exp Cell Res. 2010 Feb 12. [Epub ahead of print]

Images



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