ARG52284
anti-Fractin antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Fractin
Tested Reactivity	Hu, Rat
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Fractin
Species	Human
Immunogen	Synthetic peptide corresponding to amino acid residues from the C terminal region of the 32-kDa actin fragment
Conjugation	Un-conjugated
Alternate Names	CFTDM; MPFD; CFTD; ASMA; NEM1; NEM2; NEM3; Alpha-actin-1; ACTA; CFTD1; Actin, alpha skeletal muscle

Application Instructions

Application table

Application	Dilution
IHC-P	1:100
WB	1:1000

Application Note: Specific for the ~ 32 kDa fractin protein in Western blots with no reactivity to intact actin. There is often a ladder of smaller bands in cells or culture or in vivo prepaRations due to further degradation by other proteases.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

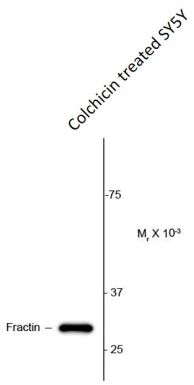
Properties

Form	Liquid
Purification	Neat Serum
Buffer	Neat serum
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 29437 Rat GeneID: 58 Human Swiss-port # P68133 Human Swiss-port # P68136 Rat
Gene Symbol	fragment of Actin
Gene Full Name	actin, alpha 1, skeletal muscle
Background	Fractin (fragment of actin) is a caspase-specific cleavage product of actin and serves as a novel marker of apoptosis-related events. The antibody has been shown to detect the processes and cell bodies of degenerating neurons and plaque-associated microglia in Alzheimer's disease (Yang et al., 1998). It has recently been reported that Fractin may have a functional role in apoptotic signaling in oligodendrocytes (Schulz, R., et al., Glia, 2009)
Research Area	Cancer antibody; Cell Death antibody; Controls and Markers antibody; Signaling Transduction antibody
Calculated Mw	42 kDa
PTM	Oxidation of Met-46 and Met-49 by MICALs (MICAL1, MICAL2 or MICAL3) to form methionine sulfoxide promotes actin filament depolymerization. MICAL1 and MICAL2 produce the (R)-S-oxide form. The (R)-S-oxide form is reverted by MSRB1 and MSRB2, which promote actin repolymerization (By similarity). Monomethylation at Lys-86 (K84me1) regulates actin-myosin interaction and actomyosin-dependent processes. Demethylation by ALKBH4 is required for maintaining actomyosin dynamics supporting normal cleavage furrow ingression during cytokinesis and cell migration. (Microbial infection) Monomeric actin is cross-linked by V.cholerae toxins RtxA and VgrG1 in case of infection: bacterial toxins mediate the cross-link between Lys-52 of one monomer and Glu-272 of another actin monomer, resulting in formation of highly toxic actin oligomers that cause cell rounding (PubMed:19015515). The toxin can be highly efficient at very low concentrations by acting on formin homology family proteins: toxic actin oligomers bind with high affinity to formins and adversely affect both nucleation and elongation abilities of formins, causing their potent inhibition in both profilin-dependent and independent manners (PubMed:26228148).

Images



ARG52284 anti-Fractin antibody WB image

Western blot: Colchicin treated SY5Y cell lysate showing specific immunolabeling of the ~ 32 kDa cleaved actin fragment (fractin) stained with ARG52284 anti-Fractin antibody.