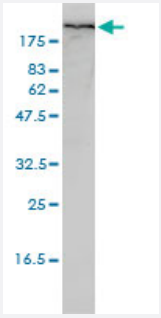
FLNA monoclonal antibody (M01), clone 4E10-1B2

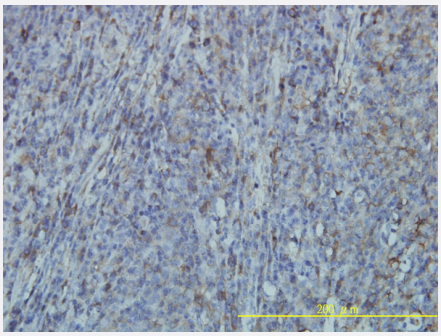
Catalog # H00002316-M01 Size 100 ug

Applications



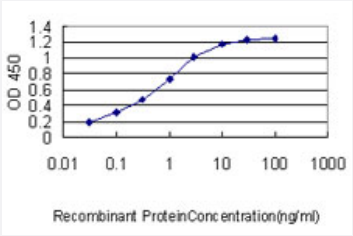
Western Blot (Cell lysate)

FLNA monoclonal antibody (M01), clone 4E10-1B2 Western Blot analysis of FLNA expression in HL-60 (Cat # L014V1).



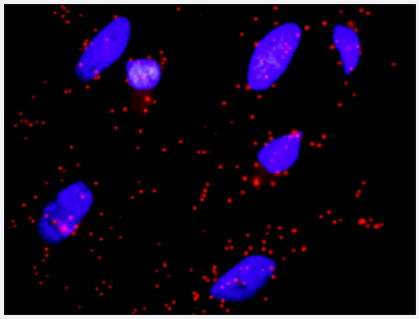
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to FLNA on formalin-fixed paraffin-embedded human lymphoma tissue. [antibody concentration 1.5 ug/ml]



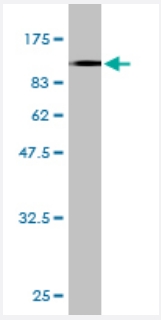
Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged FLNA is approximately 0.03ng/ml as a capture antibody.



In situ Proximity Ligation Assay (Cell)

Proximity Ligation Analysis of protein-protein interactions between GP1BA and FLNA. HeLa cells were stained with anti-GP1BA rabbit purified polyclonal 1:1200 and anti-FLNA mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).



Western Blot detection against Immunogen (117.92 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a full length recombinant FLNA.
Immunogen	FLNA (AAH14654, 1 a.a. ~ 838 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	MPSGKVAQPTITDNKDGTVTVRYAPSEAGLHEMDIRYDNMHIPGSPLQFYVDYVNCGHVTAYGPG LTHGVVNKPATFTVNTKDAGEGGLSLAIEGPSKAEISCTDNQDGTCSVSYLPVLPGDYSILVKYNE QHVPGSPFTARVTGDDSMRMSHLKVGSAADIPINISETDLSLLTATVVPPSGREEPCLLKRLRNGH VGISFVPKETGEHLVHVKKNGQHVASSPIPVVISQSEIGDASRVRVSGQGLHEGHTFEPAEFIIDTR DAGYGGLSLSIEGPSKVDINTEDLEDGTCRVTYCPTEPGNYIINIKFADQHVPGSPFSVKVTGEGRV KESITRRRRAPSVANVGSHCDLSLKIPEISIQDMTAQVTSPSGKTHEAEIVEGENHTYCIRFVPAEM GTHTVSVKYKGQHVPGSPFQFTVGPLGEGGAHKVRAGGPGLERAEAGVPAEFSIWTREAGAGG LAIAVEGPSKAEISFEDRKDGSCGVAYVVQEPGDYEVSVKFNEEHIPDSPFVVPVASPSGDARRL TVSSLQESGLKVNQPASFAVSLNGAKGAIDAKVHSPSGALEECYVTEIDQDKYAVRFIPRENGVYL IDVKFNGTHIPGSPFKIRVGEPGHGGDPGLVSAYGAGLEGGVTGNPAEFVVNTSNAGAGALSVTID GPSKVKMDCQECPEGYRVTYTPMAPGSYLISIKYGGPYHIGGSPFKAKVTGPRLVSNHSLHETSS VFVDSLTKATCAPQHGAPGPGPADASKVVAKGLGLSKAYVGQKSSFTVDCSKAGNNMLLVGVH GPRTPCEEILVKHVGSRLYSVSYLLKDKGEYTLVVKWGDEHIPGSPYRVVVP
Host	Mouse
Reactivity	Human
Isotype	IgG1 kappa

Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (117.92 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

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  Protocol Download

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- ELISA

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Gene Info — FLNA

Entrez GeneID	2316
GeneBank Accession#	BC014654
Protein Accession#	AAH14654

Gene Name	FLNA
Gene Alias	ABP-280, ABPX, DKFZp434P031, FLN, FLN1, FMD, MNS, NHBP, OPD, OPD1, OPD2
Gene Description	filamin A, alpha (actin binding protein 280)
Omim ID	300017 300049 300537 304120 309350 311300
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is an actin-binding protein that crosslinks actin filaments and lin ks actin filaments to membrane glycoproteins. The encoded protein is involved in remodeling the cytoskeleton to effect changes in cell shape and migration. This protein interacts with integrins, tra nsmembrane receptor complexes, and second messengers. Defects in this gene are a cause of several syndromes, including periventricular nodular heterotopias (PVNH1, PVNH4), otopalatodig ital syndromes (OPD1, OPD2), frontometaphyseal dysplasia (FMD), Melnick-Needles syndrome (MNS), and X-linked congenital idiopathic intestinal pseudoobstruction (CIIPX). Two transcript vari ants encoding different isoforms have been found for this gene
Other Designations	OTTHUMP00000024320|actin-binding protein 280|filamin 1|filamin A, alpha

Publication Reference

- Filamin A is involved in human intrahepatic cholangiocarcinoma aggressiveness and progression.

  Eleonora Vitali, Barbara Franceschini, Flavio Milana, Cristiana Soldani, Michela A Polidoro, Roberta Carriero, Paolo Kunderfranco, Giampaolo Trivellin, Guido Costa, Giulia Milardi, Luca Di Tommaso, Guido Torzilli, Ana Lleo, Andrea G Lania, Matteo Donadon.

  Liver International 2024 Feb; 44(2):518.

  Application: WB-Ce, Human, iCCA, HuCCT1 cells

- Filamin A organizes γ-aminobutyric acid type B receptors at the plasma membrane.

  Marie-Lise Jobin, Sana Siddig, Zsombor Koszegi, Yann Lanoiselée, Vladimir Khayenko, Titiwat Sungkaworn, Christian Werner, Kerstin Seier, Christin Misigaiski, Giovanna Mantovani, Markus Sauer, Hans M Maric, Davide Calebiro.

  Nature Communications 2023 Jan; 14(1):34.

  Application: IF, Mouse, Mouse hippocampal neurons

- Filamin A is required for somatostatin receptor type 5 expression and pasireotide-mediated signaling in pituitary corticotroph tumor cells.

  Donatella Treppiedi, Genesio Di Muro, Federica Mangili, Rosa Catalano, Elena Giardino, Anna Maria Barbieri, Marco Locatelli, Maura Arosio, Anna Spada, Erika Peverelli, Giovanna Mantovani.

  Molecular and Cellular Endocrinology 2021 Mar; 524:111159.

  Application: PLA-Ce, WB-Ce, WB-Ti, WB-Tr, Human, AtT-20 cells, Human primary ACTH secreting pituitary cultured cells

- The cytoskeleton actin binding protein filamin A impairs both IGF2 mitogenic effects and the efficacy of IGF1R inhibitors in adrenocortical cancer cells.

  R Catalano, E Giardino, D Treppiedi, F Mangili, V Morelli, F M Elli, A L Serban, M Luconi, M Mannelli, A Spada, M Arosio, G Mantovani, E Peverelli.

  Cancer Letters 2021 Jan; 28:497.

  Application: IP, WB-Ce, WB-Ti, WB-Tr, PLA-Ce, Human, H295R, SW13 cells, Human adrenocortical adenomas, Human adrenocortical carcinomas

- A novel pathway activated by somatostatin receptor type 2 (SST2): Inhibition of pituitary tumor cell migration and invasion through cytoskeleton protein recruitment.

  Peverelli E, Giardino E, Treppiedi D, Catalano R, Mangili F, Locatelli M, Lania AG, Arosio M, Spada A, Mantovani G.

  International Journal of Cancer 2018 May; 142(9):1842.

  Application: WB-Tr, Rat, GH3 cells

- Filamin A is reduced and contributes to the CASR sensitivity in human parathyroid tumors.

  Mingione A, Verdelli C, Ferrero S, Vaira V, Guarnieri V, Scillitani A, Vicentini L, Balza G, Beretta E, Terranegra A, Vezzoli G, Soldati L, Corbetta S.

  Journal of Molecular Endocrinology 2016 Nov; 58(2):91.

  Application: IF, IHC-P, WB-Tr, Human, Human normal parathyroid glands, parathyroid tumors, and HEK 293 cells

- Familial periventricular nodular heterotopia, epilepsy and Melnick-Needles Syndrome caused by a single FLNA mutation with combined gain-of-function and loss-of-function effects.

  Parrini E, Mei D, Pisanti MA, Catarzi S, Pucatti D, Bianchini C, Mascalchi M, Bertini E, Morrone A, Cavaliere ML, Guerrini R.

  Journal of Medical Genetics 2015 Jun; 52(6):405.

  Application: WB-Ce, Human, Lymphocyte cells

- Filamin A (FLNA) plays an essential role in somatostatin receptor 2 (SST2) signaling and stabilization after agonist stimulation in human and rat somatotroph tumor cells.

  Peverelli E, Giardino E, Treppiedi D, Vitali E, Cambiaghi V, Locatelli M, Lasio G, Spada A, Lania A, Mantovani G.

  Endocrinology 2014 Aug; 155(8):2392.

  Application: WB-Ti, WB-Tr, Human, GH-secreting pituitary tumor, Pituitary cells

- Junctional Rab13-binding protein (JRAB) regulates cell spreading via filamins.

  Sakane A, Alamir Mahmoud Abdallah A, Nakano K, Honda K, Kitamura T, Imoto I, Matsushita N, Sasaki T.

  Genes to Cells 2013 Sep; 18(9):810.

  Application: WB, Mouse, NIH3T3 cells

- Novel no-stop FLNA mutation causes multi-organ involvement in males.

  Oegema R, Hulst JM, Theuns-Valks SD, van Unen LM, Schot R, Mancini GM, Schipper ME, de Wit MC, Sibbles BJ, de Coo IF, Nanninga V, Hofstra RM, Halley DJ, Brooks AS.

  American Journal of Medical Genetics. Part A 2013 Sep; 161A(9):2376.

  Application: WB-Ce, Human, Human fibroblasts

- Filamin-A Is Essential for Dopamine D2 Receptor Expression and Signaling in Tumorous Lactotrophs.

  Peverelli E, Mantovani G, Vitali E, Elli FM, Olgiati L, Ferrero S, Laws ER, Della Mina P, Villa A, Beck-Peccoz P, Spada A, Lania AG.

  The Journal of Clinical Endocrinology and Metabolism 2012 Mar; 97(3):967.

  Application: IHC-P, WB-Ti, WB-Tr, Human, Rat, Prolactinomas, GH3, MMQ cells

- Mutations in TMEM216 perturb ciliogenesis and cause Joubert, Meckel and related syndromes.

  Valente EM, Logan CV, Mougou-Zerelli S, Lee JH, Silhavy JL, Brancati F, Iannicelli M, Travaglini L, Romani S, Illi B, Adams M, Szymanska K, Mazzotta A, Lee JE, Tolentino JC, Swistun D, Salpietro CD, Fede C, Gabriel S, Russ C, Cibulskis K, Sougnez C, Hildebrandt F, Otto EA, Held S, Diplas BH, Davis EE, Mikula M, Strom CM, Ben-Zeev B, Lev D, Sagie TL, Michelson M, Yaron Y, Krause A, Boltshauser E, Elkhartoufi N, Roume J, Shalev S, Munnich A, Saunier S, Inglehearn C, Saad A, Alkindy A, Thomas S, Ve

  Nature Genetics 2010 Jul; 42(7):619.

  Application: IF, Human, Fibroblasts

Pathway

- Focal adhesion
- MAPK signaling pathway

Disease

- Anorexia Nervosa
- Bulimia
- Cardiovascular Diseases
- Diabetes Mellitus
- Edema
- Genetic Predisposition to Disease