Mouse DYRK1A Monoclonal Antibody | anti-DYRK1A antibody

DYRK1A (Dual Specificity Tyrosine-phosphorylation-regulated Kinase 1A, Protein Kinase Minibrain Homolog, MNBH, HP86, Dual Specificity YAK1-related Kinase, hMNB, DYRK, MNB, MNBH) (FITC)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA25083	**Mouse**	**Human, Mouse, Rat**	**ELISA, Western Blot**

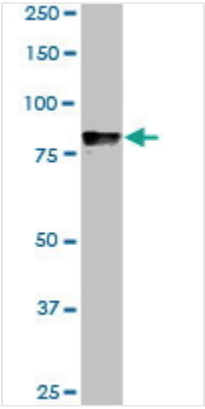
PRODUCT SYNONYMS

DYRK1A; Monoclonal Antibody; DYRK1A (Dual Specificity Tyrosine-phosphorylation-regulated Kinase 1A; Protein Kinase Minibrain Homolog; MNBH; HP86; Dual Specificity YAK1-related Kinase; hMNB; DYRK; MNB; MNBH) (FITC); anti-DYRK1A antibody

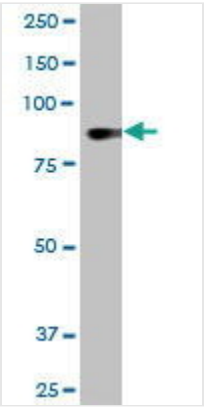
PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Isotype	IgG2b,k
Clone Number	7D10
Specificity	Recognizes human DYRK1A. Species Crossreactivity: mouse and rat.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Fluorescein isothiocyanate (FITC).
Applicable Applications for anti-DYRK1A antibody	ELISA, WB (Western Blot)
Application Notes	Applications are based on unconjugated antibody.
Immunogen	Partial recombinant corresponding to aa674-763 from human DYRK1A (NP_001387) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	NQGNQAYQNRPVAANTLDFGQNGAMDVNLTVYSNPRQETGIAGHPTYQFSANTGPAHYMTEGHLTMRQGADREESPMTGVCVQQSPVASS
Conjugate	FITC
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: FITC conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.

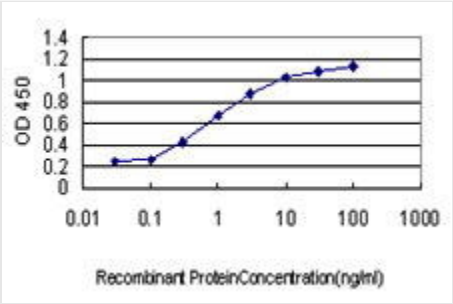
IMAGES



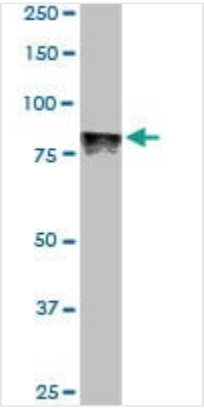
WB (Western Blot)
DYRK1A monoclonal antibody. Western Blot analysis of DYRK1A expression in NIH/3T3.



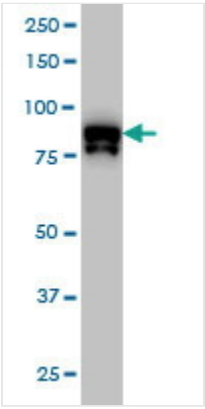
WB (Western Blot)
DYRK1A monoclonal antibody. Western Blot analysis of DYRK1A expression in 293.



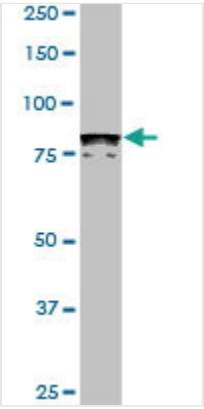
Application Data
Detection limit for recombinant GST tagged DYRK1A is ~0.03ng/ml as a capture antibody.



WB (Western Blot)
DYRK1A monoclonal antibody. Western Blot analysis of DYRK1A expression in Raw 264.7.



WB (Western Blot)
DYRK1A monoclonal antibody, Western Blot analysis of DYRK1A expression in Hela NE.



WB (Western Blot)
DYRK1A monoclonal antibody. Western Blot analysis of DYRK1A expression in PC-12.

ADDITIONAL INFORMATION

Related Product Information for anti-DYRK1A antibody	DYRK1A is a member of the Dual-specificity tyrosine phosphorylation-regulated kinase (DYRK) family. This member contains a nuclear targeting signal sequence, a protein kinase domain, a leucine zipper motif, and a highly conservative 13-consecutive-histidine repeat. It catalyzes its autophosphorylation on serine/threonine and tyrosine residues. It may play a significant role in a signaling pathway regulating cell proliferation and may be involved in brain development. This gene is a homolog of Drosophila mnb (minibrain) gene and rat Dyrk gene. It is localized in the Down syndrome critical region of chromosome 21, and is considered to be a strong candidate gene for learning defects associated with Down syndrome.

Product Categories/Family for anti-DYRK1A antibody	Antibodies; Protein Kinases
References	1. Mice Deficient in Cystathionine Beta Synthase Display Increased Dyrk1A and SAHH Activities in Brain. Planque C, Dairou J, Noll C, Bui LC, Ripoll C, Guedj F, Delabar JM, Janel N.J Mol Neurosci. 2012 Jun 15. 2. Increased dosage of the chromosome 21 ortholog Dyrk1a promotes megakaryoblastic leukemia in a murine model of Down syndrome. Malinge S, Bliss-Moreau M, Kirsammer G, Diebold L, Chlon T, Gurbuxani S, Crispino JD.J Clin Invest. 2012 Mar 1;122(3):948-62. doi: 10.1172/JCI60455. Epub 2012 Feb 22. 3. DYRK1A: A master regulatory protein controlling brain growth. Guedj F, Pereira PL, Najas S, Barallobre MJ, Chabert C, Souchet B, Sebrie C, Verney C, Herault Y, Arbones M, Delabar JM.Neurobiol Dis. 2012 Jan 26. 4. Loss of correlations among proteins in brains of the Ts65Dn mouse model of down syndrome. Ahmed MM, Sturgeon X, Ellison M, Davisson MT, Gardiner KJ.J Proteome Res. 2012 Feb 3;11(2):1251-63. Epub 2012 Jan 25. 5. Dyrk1A negatively regulates the actin cytoskeleton through threonine phosphorylation of N-WASP. Park J, Sung JY, Park J, Song WJ, Chang S, Chung KC.J Cell Sci. 2012 Jan 1;125(Pt 1):67-80. Epub 2012 Jan 16. 6. Altered regulation of tau phosphorylation in a mouse model of down syndrome aging. Sheppard O, Plattner F, Rubin A, Slender A, Linehan JM, Brandner S, Tybulewicz VL, Fisher EM, Wiseman FK.Neurobiol Aging. 2011 Aug 13. 7. Engineering DYRK1A over-dosage yields Down syndrome-characteristic cortical splicing aberrations. Toiber D, Azkona G, Ben-Ari S, Toran N, Soreq H, Dierssen M.Neurobiol Dis. 2010 Jun 30. 8. DYRK1A and DYRK3 promote cell survival through phosphorylation and activation of SIRT1. Guo X, Williams JG, Schug TT, Li X.J Biol Chem. 2010 Feb 18. 9. Hyperhomocysteinemia-induced Dyrk1a downregulation results in cardiomyocyte hypertrophy in rats. Raaf L, Noll C, Cherifi M, Benazzoug Y, Delabar JM, Janel N.Int J Cardiol. 2009 Nov 9. 10. DYRK1A, a Novel Determinant of the Methionine-Homocysteine Cycle in Different Mouse Models Overexpressing this Down-Syndrome-Associated Kinase Noll C, Planque C, Ripoll C, Guedj F, Diez A, Ducros V, Belin N, Duchon A, Paul JL, Badel A, de Freminville B, Grattau Y, Blehaut H, Herault Y, Janel N, Delabar JM.PLoS One. 2009 Oct 21;4(10):e7540. 11. Negative Feedback Inhibition of NFATc1 by DYRK1A Regulates Bone Homeostasis. Lee Y, Ha J, Kim HJ, Kim YS, Chang EJ, Song WJ, Kim HH.J Biol Chem. 2009 Nov 27;284(48):33343-51. Epub 2009 Oct 2. 12. Nonprimed and DYRK1A-primed GSK3?]-phosphorylation sites on MAP1B regulate microtubule dynamics in growing axons. Scales TM, Lin S, Kraus M, Goold RG, Gordon-Weeks PR.J Cell Sci. 2009 Jul 15;122(Pt 14):2424-35. Epub 2009 Jun 23. 13. Green Tea Polyphenols Rescue of Brain Defects Induced by Overexpression of DYRK1A. Guedj F, Sebrie C, Rivals I, Ledru A, Paly E, Bizot JC, Smith D, Rubin E, Gillet B, Arbones M, Delabar JM.PLoS One. 2009;4(2):e4606. Epub 2009 Feb 26. 14. Effect of hyperhomocysteinemia on the protein kinase DYRK1A in liver of mice. Hamelet J, Noll C, Ripoll C, Paul JL, Janel N, Delabar JM.Biochem Biophys Res Commun. 2009 Jan 16;378(3):673-7. Epub 2008 Dec 6. 15. Sprouty2 inhibitory activity on FGF-signaling is modulated by the protein kinase DYRK1A. Aranda S, Alvarez M, Turro S, Laguna A, de la Luna S.Mol Cell Biol. 2008 Oct;28(19):5899-911. Epub 2008 Aug 4.

NCBI AND UNIPROT INFORMATION

NCBI GI #	18765758
NCBI GeneID	1859
NCBI Accession #	NP_001387
NCBI GenBank Nucleotide #	NM_001396
UniProt Accession #	Q13627; O60769; Q92582; Q92810; Q9UNM5
Molecular Weight	66,099 Da
NCBI Official Full Name	dual specificity tyrosine-phosphorylation-regulated kinase 1A isoform 1
NCBI Official Synonym Full Names	dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 1A
NCBI Official Symbol	DYRK1A
NCBI Official Synonym Symbols	MNB; DYRK; HP86; MNBH; MRD7; DYRK1
NCBI Protein Information	dual specificity tyrosine-phosphorylation-regulated kinase 1A; hMNB; MNB/DYRK protein kinase; serine/threonine kinase MNB; mnb protein kinase homolog hp86; protein kinase minibrain homolog; dual specificity YAK1-related kinase; serine/threonine-specific p
UniProt Protein Name	Dual specificity tyrosine-phosphorylation-regulated kinase 1A
UniProt Gene Name	**DYRK1A**
UniProt Synonym Gene Names	DYRK; MNB; MNBH; MNBH; hMNB

UniProt Entry Name	DYR1A_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://stage.aaabiotech.com/monoclonal/dyrk1a-antibody-clone-7d10-western-blot-elisa/25083