Datasheet for ABIN3030614

anti-CDK5 antibody (AA 254-289)

5 Images

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Overview

Quantity:	0.4 mL
Target:	CDK5
Binding Specificity:	AA 254-289
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CDK5 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Flow Cytometry (FACS), Immunofluorescence (IF)

Product Details

Immunogen:	This CDK5 antibody was produced from a rabbit immunized with a KLH conjugated synthetic peptide between 254-289 amino acids from the C-terminal region of human CDK5.
Isotype:	Ig Fraction
Cross-Reactivity (Details):	Expected species reactivity: Rat, Bovine, Xenopus
Purification:	Antigen affinity purified

Target Details

Target:	CDK5
Alternative Name:	CDK5 (CDK5 Products)
Background:	Proline-directed serine/threonine-protein kinase essential for neuronal cell cycle arrest and

Target Details

	differentiation and may be involved in apoptotic cell death in neuronal diseases by triggering abortive cell cycle re-entry. Regulates several neuronal development and physiological processes including neuronal survival, migration and differentiation, axonal and neurite growth, synaptogenesis, oligodendrocyte differentiation, synaptic plasticity and neurotransmission, by phosphorylating key proteins. Activated by interaction with CDK5R1 (p35) and CDK5R2 (p39), especially in post-mitotic neurons, and promotes CDK5R1 (p35) expression in an autostimulation loop. Phosphorylates many downstream substrates such as Rho and Ras family small GTPases (e.g. PAK1, RAC1, RHOA, CDC42) or microtubule-binding proteins (e.g. MAPT/TAU, MAP2, MAP1B), and modulates actin dynamics to regulate neurite growth and/or spine morphogenesis. Phosphorylates also exocytosis associated proteins such as MCAM/MUC18, SEPT5, SYN1, and CDK16/PCTAIRE1 as well as endocytosis associated proteins such as DNM1, AMPH and SYNJ1 at synaptic terminals. In the mature central nervous system (CNS), regulates neurotransmitter movements by phosphorylating substrates associated with neurotransmitter release and synapse plasticity, synaptic vesicle exocytosis, vesicles fusion with the presynaptic membrane, and endocytosis. Promotes cell survival by activating anti-apoptotic proteins BCL2 and STAT3, and negatively regulating of JNK3/MAPK10 activity.[UniProt]
UniProt:	Q00535
Pathways:	Cell Division Cycle, Regulation of Muscle Cell Differentiation, Synaptic Membrane, Regulation of Cell Size, Skeletal Muscle Fiber Development, Synaptic Vesicle Exocytosis

Application Details

Application Notes:	Titration of the CDK5 antibody may be required due to differences in protocols and secondary/substrate sensitivity.\. Flow Cytometry: 1:25,Immunofluorescence: 1:25,Western blot: 1:1000
Restrictions:	For Research Use only

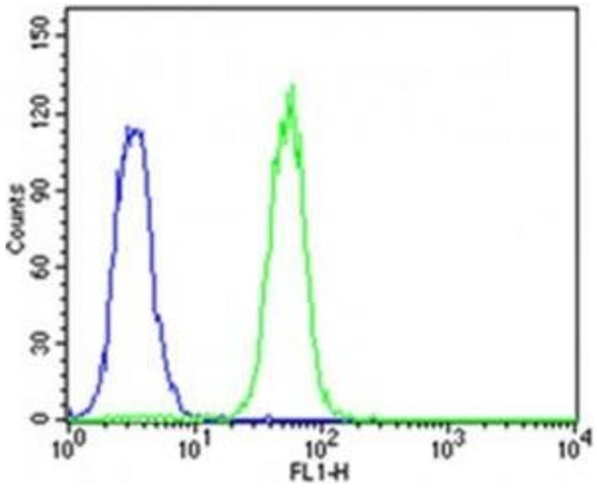
Handling

Format:	Liquid
Buffer:	In 1X PBS, pH 7.4, with 0.09 % sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

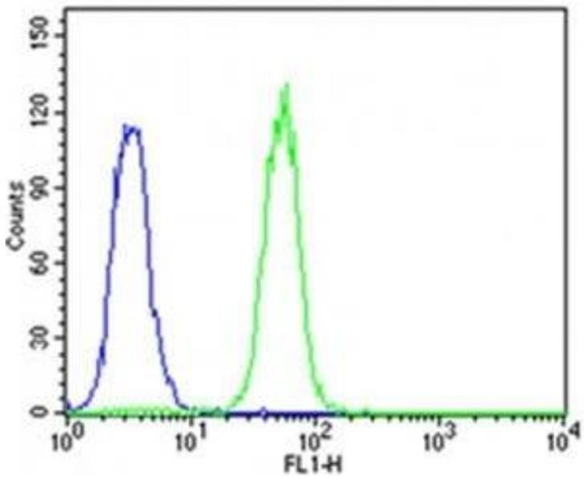
Storage:	-20 °C
Storage Comment:	Aliquot the CDK5 antibody and store frozen at -20°C or colder. Avoid repeated freeze-thaw cycles.

Images



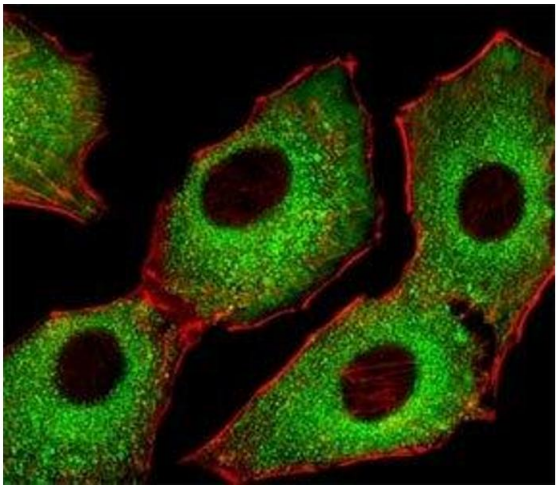
Flow Cytometry

Image 1. Flow cytometric analysis of K562 cells using CDK5 antibody (green) compared to an isotype control of rabbit IgG (blue)



Flow Cytometry

Image 2. Flow cytometric analysis of K562 cells using CDK5 antibody (green) compared to an isotype control of rabbit IgG (blue); Ab was diluted at 1:25 dilution. An Alexa Fluor 488 goat anti-rabbit IgG was used as the secondary Ab.



Immunofluorescence

Image 3. Fluorescent image of A549 cells stained with CDK5 antibody at 1:25 dilution. An Alexa Fluor 488-conjugated goat anti-rabbit IgG was used as the secondary Ab (green). Cytoplasmic actin was counterstained with Alexa Fluor 555 conjugated with Phalloidin (red

Please check the product details page for more images. Overall 5 images are available for ABIN3030614.