bs-0559R

[Primary Antibody]

CDK5 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 1020 **SWISS:** Q00535

Target: CDK5

Immunogen: KLH conjugated synthetic peptide derived from human CDK5: 15-100/292.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: This gene encodes a proline-directed serine/threonine kinase that is a member of the cyclin-dependent kinase family of proteins. Unlike other members of the family, the protein encoded by this gene does not directly control cell cycle regulation. Instead the protein, which is predominantly expressed at high levels in mammalian postmitotic central nervous system neurons, functions in diverse processes such as synaptic plasticity and neuronal migration through phosphorylation of proteins required for cytoskeletal organization, endocytosis and exocytosis, and apoptosis. In humans, an allelic variant of the gene that results in undetectable levels of the protein has been associated with lethal autosomal recessive lissencephaly-7. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2015]

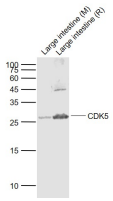
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1ug/Test)

Reactivity: Human, Mouse, Rat (predicted: Pig, Cow)

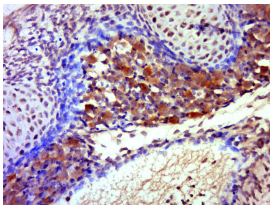
Predicted MW.: 32 kDa

Subcellular Location: Cell membrane ,Cytoplasm ,Nucleus

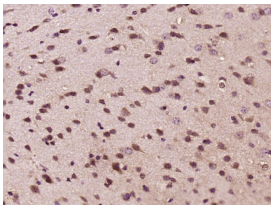
VALIDATION IMAGES



Sample: Lane 1: Large intestine (Mouse) Lysate at 40 ug Lane 2: Large intestine (Rat) Lysate at 40 ug Primary: Anti-CDK5 (bs-0559R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 29 kD Observed band size: 27 kD

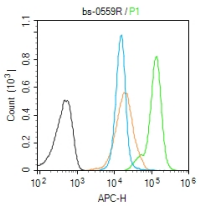


Tissue/cell: mouse embryo tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-CDK5 Polyclonal Antibody, Unconjugated(bs-0559R) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CDK5) Polyclonal Antibody, Unconjugated (bs-0559R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

Tissue/cell: rat brain tissue;4%



Blank control (Black line):Molt4 (Black). Primary

Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-CDK5 Polyclonal Antibody, Unconjugated(bs-0559R) 1:200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated(bs-0295G-Cy3)used at 1:200 dilution for 40 minutes at 37°C.

Antibody (green line): Rabbit Anti-CDK5 antibody (bs-0559R) Dilution: 1μg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647 Dilution: 1μg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=12.067]** Yang, Nanfei. et al. Blockage of PPARγ T166 phosphorylation enhances the inducibility of beige adipocytes and improves metabolic dysfunctions. CELL DEATH DIFFER. 2022 Nov;:1-13 WB ;Mouse. 36329235
- **[IF=4.53]** Chernov AV et al. Amino acid sequence conservation of the algesic fragment of myelin basic protein is required for its interaction with CDK5 and function in pain. FEBS J. 2018 Sep;285(18):3485-3502. WB ;Rat. 30079618
- **[IF=3.26]** Yin, Xiang, et al. "Roscovitine treatment caused impairment of fertilizing ability in mice." Toxicology Letters (2015). WB ;="Mouse". 26101799
- **[IF=1.93]** Cao, Yu, et al. "Traditional Chinese Medicine Huannao Yicong Decoction Extract Decreases Tau Hyperphosphorylation in the Brain of Alzheimer’ s Disease Model Rats Induced by Aβ1–42." Evidence-Based Complementary and Alternative Medicine 2016 (2016). IHC ;="Rat". 28018474
- **[IF=2.274]** Wei Zhang. et al. FoxO1 overexpression reduces Aβ production and tau phosphorylation in vitro. Neurosci Lett. 2020 Nov;738:135322 WB ;Mouse. 32860886