

Anti-Cdk6 Antibody Picoband™

Catalog Number: A00358

About CDK6

Cell division protein kinase 6, also called Plstire, is an enzyme that in humans is encoded by the CDK6 gene. The protein encoded by this gene is a member of the cyclin-dependent protein kinase (CDK) family. Radiation hybrid analysis and inclusion within a mapped clone place the CDK6 gene at 7q21. Serine/threonine-protein kinase involved in the control of the cell cycle and differentiation and promotes G1/S transition. This gene also involved in initiation and maintenance of cell cycle exit during cell differentiation. It prevents cell proliferation and regulates negatively cell differentiation, but is required for the proliferation of specific cell types. In addition, CDK6 plays a role in promoting the proliferation of beta-cells in pancreatic islets of Langerhans.

Overview

Product Name	Anti-Cdk6 Antibody Picoband™
Reactive Species	Human, Mouse
Description	Boster Bio Anti-Cdk6 Antibody Picoband™ catalog # A00358. Tested in ELISA, IHC, WB applications. This antibody reacts with Human, Mouse.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q00534

Technical Details

Immunogen	E. coli-derived human Cdk6 recombinant protein (Position: M1-A326).
Predicted Reactive Species	Chicken
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml</p> <p>Direct ELISA, 0.1-0.5ug/ml</p>

Anti-Cdk6 Antibody Picoband™ (A00358) Images

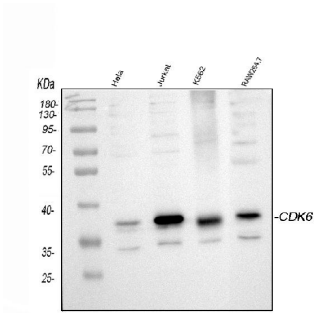


Figure 1. Western blot analysis of Cdk6 using anti-Cdk6 antibody (A00358).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,
Lane 2: human Jurkat whole cell lysates,
Lane 3: human K562 whole cell lysates,
Lane 4: mouse RAW264.7 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Cdk6 antigen affinity purified polyclonal antibody (Catalog # A00358) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Cdk6 at approximately 37 kDa. The expected band size for Cdk6 is at 37 kDa.

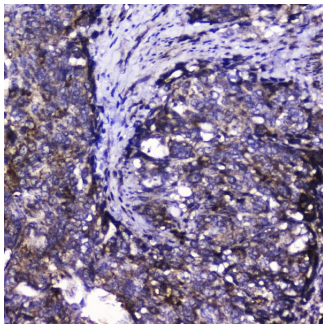


Figure 2. IHC analysis of Cdk6 using anti-Cdk6 antibody (A00358).

Cdk6 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Cdk6 Antibody (A00358) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

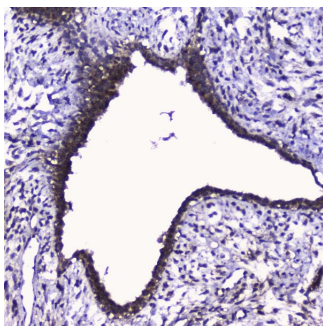


Figure 3. IHC analysis of Cdk6 using anti-Cdk6 antibody (A00358).

Cdk6 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Cdk6 Antibody (A00358) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

1. PubMed ID: 10.1186/s13046-016-0297-z, Long noncoding RNA NEAT1 promotes laryngeal squamous cell cancer through regulating miR-107/CDK6 pathway
2. PubMed ID: 34144025, Sun D,Zhao T,Long K,Wu M,Zhang Z.Triclosan down-regulates fatty acid synthase through microRNAs in HepG2 cells.Eur J Pharmacol .2021 Jun 15:174261.doi:10.1016/j.ejphar.2021.174261.Epub ahead of print.PMID:34144025.
3. PubMed ID: 27065079, TALENs-directed?knockout?of the?full-length?transcription?factor?Nrf1?that?represses?malignantbehaviour?of?human?hepatocellular?carcinoma?(HepG2)?cells

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