

Product Specification Sheet

Product: Anti-Cyclin Dependent Kinase Kit

Code: K-912

Lot # 5239

Contents: Kit contains 100 ul each of Anti-Cyclin Dependent Kinase: anti-cdc2, anti-cdk2, anti-cdk4, anti-cdk5 and anti-PITALRE and one (1) unit of Peroxidase Conjugated Affinity Purified Anti-Rabbit IgG [H&L] (Goat).

Application(s): This kit contains immunological reagents suitable for the analysis of Human, Mouse and Rat cyclin dependent kinases. Reagents are designed for analysis by Western Blotting and ELISA. Some immunohistochemical data has been collected. See Specification Data sheet supplied for each component of this kit.

Storage Conditions: Store kit at -20° C before opening. Follow instructions given for components of kit.

Note: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.

Product Specification Sheet

Product: Anti-cdc2 Cyclin Dependent Kinase [Rabbit]

Code: 100-401-160

Lot # 2527

Size: 100 ul

Physical State: Liquid (sterile filtered)

Protein Concentration: 85 mg/ml (by Refractometry)

Buffer: None

Stabilizer: None

Preservative: 0.01% (w/v) Sodium Azide

Application(s): suitable for ELISA, immunoprecipitation, immunohistochemistry, immunoblotting and other immunological methods requiring high titer and specificity.

Recommended Dilution(s): This product was assayed by immunoblot and found to be reactive against cdc2 at a dilution of 1:500 to 1:1000 followed by reaction with Peroxidase conjugated Affinity Purified anti-Rabbit IgG [H&L] (Goat) code #611-1302. Anti-cdc2 is suitable for the detection by immunoblot of human, rat and mouse cdc2. Suggested dilutions for ELISA are 1:500 to 1:2000. For immunohistochemistry on paraffin embedded tissue dilute the product 1:200 to 1:1000. Optimal titers for other applications should be determined by the researcher.

Storage Conditions: Store vial at -20° C or below prior to opening. Dilute only prior to immediate use. Aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is six (6) months from date of opening product.

Purity and Specificity: This product was prepared from monospecific antiserum by delipidation and defibrination. Antiserum will specifically react with a 34 kDa cdc2 protein from human, rat and mouse tissue. No reaction was observed against other related cyclin dependent kinases. Cross reactivity with cdc2 from other species may also occur.

Immunogen: cdc2 peptide corresponding to the C-terminus of the human protein conjugated to Keyhole Limpet Hemocyanin (KLH).

Note: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.

Reference(s):

Draetta, G., Beach, D. (1988) Activation of cdc2 protein kinase during mitosis in human cells: cell cycle dependent phosphorylation and subunit rearrangement. *Cell* 54; 17-26.

Giordano, A., Whyte, P., Harlow, E., Franza, B., Beach D. and Draetta, G. (1989) A 60 kd cdc-2 associated polypeptide complexes with the E1A proteins of adenovirus-infected cells. *Cell* 58; 981-990.

Product Specification Sheet

Product: Anti-cdk2 Cyclin Dependent Kinase [Rabbit]

Code: 100-401-161

Lot # 2625

Size: 100 ul

Physical State: Liquid (sterile filtered)

Protein Concentration: 85 mg/ml (by Refractometry)

Buffer: None

Stabilizer: None

Preservative: 0.01% (w/v) Sodium Azide

Application(s): suitable for ELISA, immunoprecipitation, immunohistochemistry, immunoblotting and other immunological methods requiring high titer and specificity.

Recommended Dilution(s): This product was assayed by immunoblot and found to be reactive against cdk2 at a dilution of 1:500 to 1:1,000 followed by reaction with Peroxidase conjugated Affinity Purified anti-Rabbit IgG [H&L] (Goat) code #611-1302. Anti-cdk2 is suitable for the detection by immunoblot of human, rat and mouse cdk2. Suggested dilutions for ELISA are 1:500 to 1:2,000. For immunohistochemistry on paraffin embedded tissue dilute the product 1:200 to 1:1,000. Optimal titers for other applications should be determined by the researcher.

Storage Conditions: Store vial at -20° C or below prior to opening. Dilute only prior to immediate use. Aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is six (6) months from date of opening product.

Purity and Specificity: This product was prepared from monospecific antiserum by delipidation and defibrination. Antiserum will specifically react with a 33 kDa cdk2 protein from human, rat and mouse tissue. No reaction was observed against other related cyclin dependent kinases. Cross reactivity with cdk2 from other species may also occur.

Immunogen: cdk2 peptide corresponding to the C-terminus of the human protein conjugated to Keyhole Limpet Hemocyanin (KLH).

Note: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.

Reference(s):

Elledge, S.J. and Spotswood, M. (1991) A new human p34 protein kinase CDK2, identified by complementation of a cdc28 mutation, is a homolog of Xenopus Eg1. EMBO J. 10; 2653-2659.

Giordano, A., Lee, J.H., Scheppler, J.A., Herrmann, C., Harlow, E., Deuschle, U., Beach, D. and Franza, B. Jr. (1991) Cell cycle regulation of histone H1 kinase activity associated with the adenoviral protein E1A. Science 253; 1271-1275.

Tsai, L.H., Harlow, E. and Myerson, M. (1991) Isolation of the human CDK2 gene that encodes the cyclin A and adenovirus E1A-associated p33 kinase. Nature 353; 174-177.

Product Specification Sheet

Product: Anti-cdk4 (p34) Cyclin Dependent Kinase [Rabbit]

Code: 100-401-162

Lot # 3127

Size: 100 ul

Physical State: Liquid (sterile filtered)

Protein Concentration: 85 mg/ml (by Refractometry)

Buffer: None

Stabilizer: None

Preservative: 0.01% (w/v) Sodium Azide

Application(s): suitable for ELISA, immunoprecipitation, immunoblotting and other immunological methods requiring high titer and specificity.

Recommended Dilution(s): This product was assayed by immunoblot and found to be reactive against cdk4 (p34) at a dilution of 1:200 to 1:500 followed by reaction with Peroxidase conjugated Affinity Purified anti-Rabbit IgG [H&L] (Goat) code #611-1302. Anti-cdk4 (p34) is suitable for the detection by immunoblot of human, rat and mouse cdk4 (p34). Suggested dilutions for ELISA are 1:500 to 1:2,000. Optimal titers for other applications should be determined by the researcher.

Storage Conditions: Store vial at -20° C or below prior to opening. Dilute only prior to immediate use. Aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is six (6) months from date of opening product.

Purity and Specificity: This product was prepared from monospecific antiserum by delipidation and defibrination. Antiserum will specifically react with a 34 kDa cdk4 (p34) protein from human, rat and mouse tissue. No reaction was observed against other related cyclin dependent kinases. Cross reactivity with cdk4 (p34) from other species may also occur

Immunogen: cdk4 (p34) peptide corresponding to the C-terminus of the human protein conjugated to Keyhole Limpet Hemocyanin (KLH).

Note: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.

Reference(s):

Meyerson, M., Enders, G.H., Su, L.K., Gorka, C., Nelson, C., Harlow, E. and Tsai, L.H. (1992) A family of cdc2-related protein kinases. EMBO J. 11; 2909-2917.

Product Specification Sheet

Product: Anti-cdk5 (p31) Cyclin Dependent Kinase [Rabbit]

Code: 100-401-163

Lot # 3128

Size: 100 ul

Physical State: Liquid (sterile filtered)

Protein Concentration: 85 mg/ml (by Refractometry)

Buffer: None

Stabilizer: None

Preservative: 0.01% (w/v) Sodium Azide

Application(s): suitable for ELISA, immunoprecipitation, immunoblotting and other immunological methods requiring high titer and specificity.

Recommended Dilution(s): This product was assayed by immunoblot and found to be reactive against cdk5 (p31) at a dilution of 1:500 followed by reaction with Peroxidase conjugated Affinity Purified anti-Rabbit IgG [H&L] (Goat) code #611-1302. Anti-cdk5 (p31) is suitable for the detection by immunoblot of human, rat and mouse cdk5 (p31). Suggested dilutions for ELISA are 1:500 to 1:2000. Optimal titers for other applications should be determined by the researcher.

Storage Conditions: Store vial at -20° C or below prior to opening. Dilute only prior to immediate use. Aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is six (6) months from date of opening product.

Purity and Specificity: This product was prepared from monospecific antiserum by delipidation and defibrination. Antiserum will specifically react with a 35 kDa cdk5 (p31) protein from human, rat and mouse tissue. No reaction was observed against other related cyclin dependent kinases. Cross reactivity with cdk5 (p31) from other species may also occur.

Immunogen: cdk5 (p31) peptide corresponding to the C-terminus of the human protein conjugated to Keyhole Limpet Hemocyanin (KLH).

Note: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.

Reference(s):

Meyerson, M., Enders, G.H., Su, L.K., Gorka, C., Nelson, C., Harlow, E. and Tsai, L.H. (1992) A family of cdc2-related protein kinases. EMBO J. 11; 2909-2917.

Hellmich, M.R., Pant, H.C., Wada, E. and Battey, J.F. (1992) Neuronal cdc2-like kinase: a cdc2-related protein kinase with predominantly neuronal expression. PNAS USA 89; 10867-10871.

Product Specification Sheet

Product: Anti-PITALRE Cyclin Dependent Kinase [Rabbit]

Code: 100-401-167

Lot # 2528

Size: 100 ul

Physical State: Liquid (sterile filtered)

Protein Concentration: 85 mg/ml (by Refractometry)

Buffer: None

Stabilizer: None

Preservative: 0.01% (w/v) Sodium Azide

Application(s): suitable for ELISA, immunoprecipitation, immunohistochemistry, immunoblotting and other immunological methods requiring high titer and specificity.

Recommended Dilution(s): This product was assayed by immunoblot and found to be reactive against PITALRE at a dilution of 1:500 to 1:1000 followed by reaction with Peroxidase conjugated Affinity Purified anti-Rabbit IgG [H&L] (Goat) code #611-1302. Anti-PITALRE is suitable for the detection by immunoblot of human, rat and mouse PITALRE. Suggested dilutions for ELISA are 1:500 to 1:2000. For immunohistochemistry on paraffin embedded tissue dilute the product 1:200 to 1:1000. Optimal titers for other applications should be determined by the researcher.

Storage Conditions: Store vial at -20° C or below prior to opening. Dilute only prior to immediate use. Aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is six (6) months from date of opening product.

Purity and Specificity: This product was prepared from monospecific antiserum by delipidation and defibrination. Antiserum will specifically react with a 43 kDa PITALRE protein from human, rat and mouse tissue. No reaction was observed against other related cyclin dependent kinases. Cross reactivity with PITALRE from other species may also occur.

Immunogen: Full length GST fusion protein corresponding to the human gene.PITALRE

Note: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.

Reference(s):

Grana, X., DeLuca, A., Sang, N., Fu, Y., Claudio, P., Rosenblatt, J., Morgan, D. and Giordano, A. (1994) PITALRE a nuclear cdc2-related protein kinase that phosphorylates the retinoblastoma protein in vitro. Proc. Natl. Acad Sci. USA 91; 3834-3838.

Bullrich, F., MacLachlin, T., Sang, N., Druck, T., Veronese, M.L., Allen, S., Chirazzi, N., Koff, A., Heubner, K., Croce, C. and Giordano, A. (1995) Chromosomal mapping of members of the cdc2 family of protein kinases, cdk3, cdk6, PISSLRE, PITALRE and a cdk inhibitor, p27, to regions involved in human cancer. Cancer Res. 55; 1199-1205.

Product Specification Sheet

Product: Peroxidase Conjugated Affinity Purified anti-Rabbit IgG [H&L] [Goat]

Code: 611-1302

Lot # 4494

Size: 2.0 mg

Physical State: Lyophilized

Antibody Concentration: 2.0 mg/ml (by UV absorbance at 280 nm)

Label: Horseradish Peroxidase (HRP)

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: 10 mg/ml Bovine Serum Albumin (BSA) IgG and Protease free

Preservative: 0.01% (w/v) Gentamicin Sulfate

Application(s): suitable for immunoblotting (western or dot blot), ELISA, immunoperoxidase electron microscopy and immunohistochemistry as well as other peroxidase-antibody based enzymatic assays requiring lot-to-lot consistency.

Recommended Dilution(s): This product has been assayed against 1.0 ug of Rabbit IgG in a standard capture ELISA using ABTS (2,2'-azino-bis-[3-ethylbenthiiazoline-6-sulfonic acid]) code # ABTS-100 as a substrate for 30 minutes at room temperature. A working dilution of 1:7,000 to 1:30,000 of the reconstitution concentration is suggested for this product. Optimal titers for other applications should be determined by the researcher.

Storage Conditions: Store vial at 4° C prior to restoration. Restore with 1.0 ml of deionized water (or equivalent). For extended storage reconstitute product with 50% glycerol instead of water and then aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of restoration.

Purity and Specificity: This product was prepared from monospecific antiserum by immunoaffinity chromatography using Rabbit IgG coupled to agarose beads. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Peroxidase, anti-Goat Serum, Rabbit IgG and Rabbit Serum.

Immunogen: Rabbit IgG, whole molecule

Conjugation Reference: Farr & Nakane, *J. Immunol. Methods* **47**; 129-144. 1981.

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