

#### RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet

# GOAT ANTI HUMAN CASEIN KINASE 1 DELTA (C-TERMINAL)

With HRP-conjugated secondary antibody

Catalog No. DS-PB-00370	Species: Human	Isotype: Goat IgG	

#### Description

Casein kinase I (also designated CKI) and casein kinase II (also designated CKII) compose a family of serine/ threonine protein kinases which are present in all eukaryotes examined to date. CKI family members, which include CKI $\alpha$ ,  $\gamma$ ,  $\epsilon$  and  $\delta$ , have been implicated in the control of cytoplasmic and nuclear processes, including DNA replication and repair. CKII is usually expressed as a tetrameric complex consisting of either an  $\alpha 2\beta 2$  or an  $\alpha \alpha'\beta 2$  structure. The  $\alpha$  catalytic subunit is stimulated by the  $\beta$  regulatory subunit, which undergoes autophosphorylation. CKII activity is high in the cytosol and nucleus of proliferating and differentiating cells. CKII is known to phosphorylate more than 100 different substrates including nuclear oncoproteins, transcription factors and enzymes involved in DNA metabolism.

#### **Applications**

Table Summary of antibody applications and working conditions

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA	•			
Western Blotting			•	
Immunohistology - frozen			•	
Immunohistology - paraffin	•			1:200*
Immunohistology - resin			•	
Immunoprecipitation			•	
Flow Cytometry			•	
Immunofluorence staining			•	
Neutralization			•	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.
\*requires antigen retrieval using heat treatment prior to staining of paraffin sections

The products are furnished for LABORATORY RESEARCH USE ONLY.

Not for diagnostic or therapeutic use.



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## Preparation

Immunogen synthetic peptide corresponding to amino acids 310 - 327 of human casein kinase 1 delta. Antisera to human casein kinase 1 delta were raised by repeated immunisations of goats with highly purified antigen.

# Specificity

DS-PB-00370 is specific for human casein kinase 1 delta, also known as protein kinase CK1 delta. The casein kinase 1 family of protein kinases is common to all eukaryotic cells, although tissue distribution and subcellular localisation may vary between isoforms. Casein kinase 1 delta has been implicated in the regulation of p53. Upregulation of casein kinase 1 delta expression has been reported in Alzheimer's disease hippocampus and its association with tau-containing bodies suggests that it may play a role in the abnormal phosphorylation of tau.

#### Reconstitution

Supplied as 0.1ml of purified antibody. **Please avoid freeze-thaw cycles.** 

## Secondary Antibody Applications

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blot)	•			1:5000-1:10000

## Storage

Store at  $-20^{\circ}$ C, if not intended for use within a month, and should be stored undiluted. Keep it at  $4^{\circ}$ C and minimize freezing and thawing when use.

#### Reference

Tuazon, P.T., et al. 1991. Casein kinase I and II--multipotential serine protein kinases: structure, function, and regulation. Adv. Second Messenger Phosphoprotein Res. 23: 123-164.