

Catalog No. LF-MA0216

MONOCLONAL ANTIBODY



## Anti-Casein Kinase II beta

**Background :** The casein kinase I (CKI) family of serine/threonine protein kinases is highly conserved from yeast to humans. The CKI family is involved in many diverse and important cellular functions, such as regulation of membrane transport, cell division, DNA repair, circadian rhythms, and nuclear localization.

The name of the enzyme family was originated from the convenience of casein as a substrate since the earliest days of research on protein phosphorylation.

Casein kinase 2 (CK2) is a ubiquitous, highly conserved, essential serine/threonine kinase which has been implicated in cell cycle control, DNA repair, regulation of the circadian rhythm and other cellular processes.

CK2 is a tetramer of two alpha subunits and two beta subunits. The alpha subunits have the catalytic kinase domain. Loss of the  $\alpha'$  catalytic subunit produces male infertility, and loss of the single  $\beta$  regulatory subunit is early embryonic lethal.

CK2 appears to be upregulated in most cancers and the promotion of tumorigenesis by the overexpression of CK2 has been reported in transgenic mice.

**Immunogen :** Recombinant human protein purified from *E.coli* (His-casein kinase II beta)

**Host :** Mouse

**Clone number :** 26C3

**Isotype :** IgG1,  $\lambda$

**Size :** 100ul

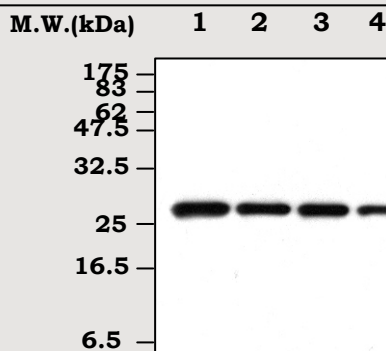
**Composition :** Hepes with 0.15M NaCl, 0.01% BSA, 0.03% sodium azide, and 50% glycerol

**Positive control :** K562 cell lysate

**Storage :** Store for 1 year at  $-20^{\circ}\text{C}$  from date of shipment

### Species cross reactivity

Human	Mouse	Rat
+	+	+



### Immunoblot Analysis of cell lysates

Lane 1 : K562 cell lysate  
Lane 2 : MCF-7 cell lysate  
Lane 3 : HL60 cell lysate  
Lane 4 : Raji cell lysate

### Applications :

ELISA

Western Blotting (1:2,000)

### Background Reference :

- 1) Price M.A., 2006 Genes Dev. 20:399-410
- 2) Seldin DC et al., 2005, Mol Cell Biochem. 274(1-2):63-67.
- 3) Tobin A.B., 2002, Trends Pharmacol Sci. 23:337-343
- 4) Gross S.D. and Anderson R.A., 1998, Cell Signal. 10:699-711

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