

## PRODUCT DATA SHEET

Bioworld Technology CO., Ltd.



### PKA $\alpha$ / $\beta$ cat (K17) Peptide

Cat No.: BS2648P

#### Background

The second messenger cyclic AMP (cAMP) mediates diverse cellular responses to external signals such as proliferation, ion transport, regulation of metabolism and gene transcription by activation of the cAMP-dependent protein kinase (cAPK or PKA). Activation of PKA occurs when cAMP binds to the two regulatory subunits of the tetrameric PKA holoenzyme resulting in release of active catalytic subunits. Three catalytic (C) subunits have been identified, designated C $\alpha$ , C $\beta$  and C $\gamma$ , that each represent specific gene products. C $\alpha$  and C $\beta$  are closely related (93% amino acid sequence similarity), whereas C $\gamma$  displays 83% and 79% similarity to C $\alpha$  and C $\beta$ , respectively. Activation of transcription upon elevation of cAMP levels results from translocation of PKA to the nucleus where it phosphorylates the transcription factor cAMP response element binding protein (CREB) on serine 133 which in turn leads to TFIIB binding to TATA-box-binding protein TBPI, thus linking phospho-CREB to the pol II transcription initiation complex.

#### Swiss-Prot

P17612/P22694

#### Applications

Blocking

#### Specificity

This peptide can be used with studies using BS2648 PKA $\alpha$ / $\beta$  cat (K17) pAb.

#### Purification & Purity

Synthetic peptide PKA $\alpha$ / $\beta$  cat (K17). (Note: the amino acid sequence is proprietary). The purity is > 98%.

#### Product

1 mg/ml in DI water.

#### Storage & Stability

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

#### Research Use

For research use only, not for use in diagnostic procedure.