

Mitotic Checkpoint Serine/threonine-protein Kinase BUB1

Human, BUB1

Expressed in *Spodoptera frugiperda*

Cat. No. CBCRY01

Lot. No. (See product label)

BACKGROUND

The kinase(BUB1) functions in part by phosphorylating a member of the mitotic checkpoint complex and activating the spindle checkpoint. Mutations in this gene have been associated with aneuploidy and several forms of cancer.

MOLECULAR DESCRIPTION

Protein Classification: Transferase

Structure Weight: 42450.29 Da

Polymer: 1

Molecule: Mitotic checkpoint serine/threonine-protein kinase BUB1

Chains: A

Type: polypeptide (L)

Chain Length: 365 amino acids

Fragment: UNP residues 724-1085

CRYSTAL INFORMATION

PDB ID: [3E7E](#)

MMDB ID: [68144](#)

Source: *Spodoptera frugiperda*

Method: X-Ray Diffraction

Resolution: 2.31 Å

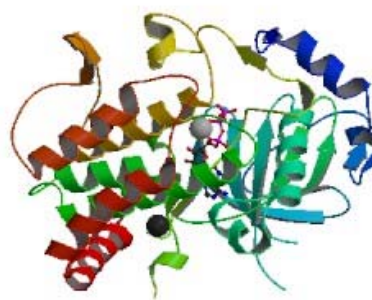
Ligand Chemical Component: Adenosine-5'-triphosphate; chloride ion; Magnesium ion

PRIMARY CITATION

Kang J, Yang M, Li B, Qi W, Zhang C, Shokat KM, Tomchick DR, Machius M, Yu H. Structure and substrate recruitment of the human spindle checkpoint kinase Bub1. *Mol Cell*. 2008 Nov 7;32(3):394-405.

FOR RESEARCH USE ONLY

CRYSTAL STRUCTURE



GENE INFORMATION

Gene Name: [BUB1](#)

Synonyms: BUB1A; BUB1L; hBUB1; BUB1 budding uninhibited by benzimidazoles 1 homolog; budding uninhibited by benzimidazoles 1; mitotic spindle checkpoint kinase; putative serine/threonine-protein kinase

UniProt ID: [O43683](#)

GeneID: [699](#)

Chromosome Location: 2q14

Function: nucleotide binding; protein kinase activity; protein serine/threonine kinase activity; ATP binding; kinase activity; transferase activity

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