

Mad2-p31(comet) complex

Human, MAD2-p31

Expressed in *E.Coli*

Cat. No. CBCRY03

Lot. No. (See product label)

BACKGROUND

The crystal structure of the Mad2-p31(comet) complex is reported. The C-terminal region of Mad2 that undergoes rearrangement in different Mad2 conformers is a major structural determinant for p31(comet) binding, explaining the specificity of p31(comet) toward Mad1- or Cdc20-bound Mad2. p31(comet) adopts a fold strikingly similar to that of Mad2 and binds at the dimerization interface of Mad2. Thus, p31(comet) exploits the two-state behavior of Mad2 to block its activation by acting as an "anti-Mad2."

MOLECULAR DESCRIPTION

Protein classification: cell cycle

Structure weight: 105471.24 Da

Polymer: 1

Molecule: Mitotic spindle assembly checkpoint protein MAD2A

Chains: A, C

Type: polypeptide (L)

Chain Length: 210 amino acids

Polymer: 2

Molecule: MAD2L1-binding protein

Chains: B, D

Chain Length: 268 amino acids

Type: polypeptide (L)

Polymer: 3

Molecule: peptide

Chains: E,F

Chain Length: 12 amino acids

CRYSTAL INFORMATION

PDB ID: [2QYF](#)

Source: Homo sapiens

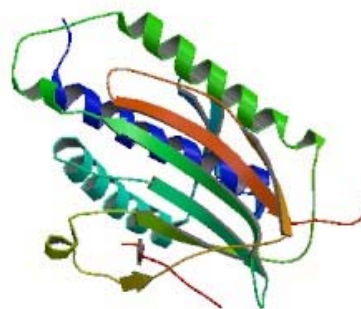
Method: X-Ray Diffraction

Resolution: 2.30 Å

Modified residues: selenomethionine (parent: MET)

FOR RESEARCH USE ONLY

CRYSTAL STRUCTURE



GENE INFORMATION

Gene Name: [MAD2L1](#)

Synonyms: HSMAD2; MAD2; MAD2 (mitotic arrest deficient, yeast, homolog)-like 1; MAD2-like 1; MAD2-like protein 1; mitotic arrest deficient, yeast, homolog-like 1; MAD2 mitotic arrest deficient-like 1 (yeast); Mitotic spindle assembly checkpoint protein MAD2A

UniProt ID: [Q13257](#)

GeneID: [4085](#)

Chromosome Location: 4q27

Function: protein binding

Gene Name: [MAD2L1BP](#)

Synonyms: MAD2L1 binding protein; CMT2, KIAA0110, MGC11282, RP1-261G23.6; OTTHUMP00000016496; caught by MAD2 protein; KIAA0110; dJ261G23.1

UniProt ID: [Q15013](#)

GeneID: [9587](#)

Chromosome Location: 6p21.1

PRIMARY CITATION

Yang, M., Li, B., Tomchick, D.R., Machius, M., Rizo, J., Yu, H., Luo, X. p31comet blocks Mad2 activation through structural mimicry. *Cell(Cambridge,Mass.)*2007; 131: 744-755

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