## Recombinant Human MAD2L1/MAD2 Protein (His Tag)

### Catalog No. PKSH030781

*Note:* Centrifuge before opening to ensure complete recovery of vial contents.

SynonymsHSMAD2;MAD2SpeciesHumanExpression HostE.coliSequenceMet 1-Asp 205AccessionQ13257Calculated Molecular Weight25.6 kDaObserved molecular weight28 kDaTagN-HisBioactivityNot validated for activity	Description		
SpeciesHumanExpression HostE.coliSequenceMet 1-Asp 205AccessionQ13257Calculated Molecular Weight5.6 kDaObserved molecular weight28 kDaTagN-HisBioactivityNot validated for activity	Synonyms	HSMAD2;MAD2	
Expression HostE.coliSequenceMet 1-Asp 205AccessionQ13257Calculated Molecular Weight25.6 kDaObserved molecular weight28 kDaTagN-HisBioactivityNot validated for activity	Species	Human	
SequenceMet 1-Asp 205AccessionQ13257Calculated Molecular Weight25.6 kDaObserved molecular weight28 kDaTagN-HisBioactivityNot validated for activity	Expression Host	E.coli	
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Calculated Molecular Weight25.6 kDaObserved molecular weight28 kDaTagN-HisBioactivityNot validated for activity	Accession	Q13257	
Observed molecular weight28 kDaTagN-HisBioactivityNot validated for activity	Calculated Molecular Weight	25.6 kDa	
TagN-HisBioactivityNot validated for activity	Observed molecular weight	28 kDa	
<b>Bioactivity</b> Not validated for activity	Tag	N-His	
	Bioactivity	Not validated for activity	
Properties	Properties		
<b>Purity</b> > 96 % as determined by reducing SDS-PAGE.	Purity	> 96 % as determined by reducing SDS-PAGE.	
EndotoxinPlease contact us for more information.	Endotoxin	Please contact us for more information.	
StorageGenerally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.	Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.	
<b>Shipping</b> This product is provided as lyophilized powder which is shipped with ice packs.	Shipping	This product is provided as lyophilized powder which is shipped with ice packs.	
FormulationLyophilized from sterile PBS, 20% glycerol, pH 7.4Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.Please refer to the specific buffer information in the printed manual.	Formulation	Lyophilized from sterile PBS, 20% glycerol, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.	
Reconstitution Please refer to the printed manual for detailed information.	Reconstitution	Please refer to the printed manual for detailed information.	

Data

KDa	MK	R
116	_	•
66.2	-	
45.0	-	
35.0	-	
		-
25.0	-	
18.4	-	
14.4	-	

> 96 % as determined by reducing SDS-PAGE.

## Background

Mitotic spindle assembly checkpoint protein MAD2A, also known as HsMAD2, Mitotic arrest deficient 2-like protein 1, MAD2-like protein 1, MAD2L1 and MAD2, is a nucleus and cytoplasm protein which belongs to theMAD2 family.

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MAD2L1 is a component of the spindle-assembly checkpoint that prevents the onset of anaphase until all chromosomes are properly aligned at the metaphase plate. MAD2L1 is required for the execution of the mitotic checkpoint which monitors the process of kinetochore-spindle attachment and inhibits the activity of the anaphase promoting complex by sequestering CDC20 until all chromosomes are aligned at the metaphase plate. MAD2L1 has two highly different native conformations, an inactive open conformation that cannot bind CDC20 and that predominates in cytosolic monomers, and an active closed conformation. MAD2L1 in the closed conformation preferentially dimerizes with another molecule in the open conformation, but can also form a dimer with a molecule in the closed conformation. Formation of a heterotetrameric core complex containing two molecules of MAD1L1 and of MAD2L1 in the closed conformation promotes binding of another molecule of MAD2L1 in the open conformation and the conversion of the open to the closed form, and thereby promotes interaction with CDC20.