Human KSP-Cadherin / Cadherin-16 / CDH16 Protein (His Tag)

Catalog Number: 10915-H08H

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

UNQ695/PRO1340

Protein Construction:

A DNA sequence encoding the extracellular domain of human CDH16 (NP_004053.1) (Met 1-Ala 786) was expressed, fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 70 % as determined by SDS-PAGE

Bio Activity:

Bind to anti-CDH16

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Lys 19

Molecular Mass:

The recombinant human CDH16 comprises 779 amino acids and has a calculated molecular mass of 84.8 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 100 kDa protein in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

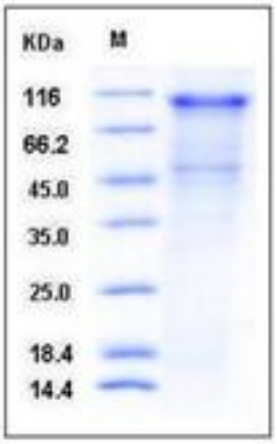
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

KSP-Cadherin/Cadherin-16 is a member of the cadherin superfamily, calcium-dependent, membrane-associated glycoproteins. The protein consists of an extracellular domain containing 6 cadherin domains, a transmembrane region and a truncated cytoplasmic domain but lacks the prosequence and tripeptide HAV adhesion recognition sequence typical of most classical cadherins. Expression is exclusively in kidney, where the protein functions as the principal mediator of homotypic cellular recognition, playing a role in the morphogenic direction of tissue development. KSP-Cadherin/Cadherin-16 can be detected at later stages of tubulogenesis during human renal development and in the distal tubules of adult kidneys, no expression was found by immunohistochemistry or Western blot analysis in RCC tumour tissues and several RCC cell lines. However, despite the lack of protein expression, mRNA synthesis of KSP-Cadherin/Cadherin-16 could be detected by reverse transcriptase-polymerase chain reaction analysis in all RCC tissues and most of the RCC cell lines studied, although at a reduced level. The loss of KSP-Cadherin/Cadherin-16 protein was only observed in the malignant part of the tumour kidneys, whereas in the normal part of the affected kidneys KSP-Cadherin/Cadherin-16 expression was clearly detected. These results indicate a downregulation of Ksp-cadherin in RCC and suggest a role for this cell adhesion molecule in tumour suppression.

References

1.Thomson RB, *et al*. (1999) Immunolocalization of Ksp-cadherin in the adult and developing rabbit kidney. Am J Physiol. 277 (1): 146-56.
2.Thedieck C, *et al*. (2005) Expression of Ksp-cadherin during kidney development and in renal cell carcinoma. Br J Cancer. 92(11): 2010-7.
3.Bai Y, *et al*. (2002) Regulation of kidney-specific Ksp-cadherin gene promoter by hepatocyte nuclear factor-1beta. Am J Physiol Renal Physiol. 283(4): 839-51.