

Recombinant Human pericentrin Protein, His tagged

Cat. No. PCNT-045H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant human PCNT protein (O95613) (His 258-Leu 553) with a His tag at the C-terminus was expressed in HEK293.

Species Human

Source HEK293

ProteinLength 258-553aa

Description

Pericentrin (kendrin), also known as PCNT and pericentrin-B (PCNTB), is a protein which in humans is encoded by the PCNT gene on chromosome 21. This protein localizes to the centrosome and recruits proteins to the pericentriolar matrix (PCM) to ensure proper centrosome and mitotic spindle formation, and thus, uninterrupted cell cycle progression. This gene is implicated in many diseases and disorders, including congenital disorders such as microcephalic osteodysplastic primordial dwarfism type II (MOPDII) and Seckel syndrome. The protein encoded by this gene is expressed in the cytoplasm and centrosome throughout the cell cycle, and to a lesser extent, in the nucleus. It is an integral component of the PCM, which is a centrosome scaffold that anchors microtubule nucleating complexes and other centrosomal proteins. In one model, PCNT complexes with CEP215 and is phosphorylated by PLK1, leading to PCM component recruitment and organization, centrosome maturation, and spindle formation. The protein controls the nucleation of microtubules by interacting with the microtubule nucleation component γ -tubulin, thus anchoring the γ -tubulin ring complex to the centrosome, which is essential for bipolar spindle formation and

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chromosome assembly in early mitosis. This ensures normal function and organization of the centrosomes, mitotic spindles, and cytoskeleton, and by extension, regulation over cell cycle progression and checkpoints.

Tag C-His

Molecular Mass 36.7 kDa

Endotoxin Less than 1.0 EU/μg by the LAL method.

Purity >95% as determined by SDS-PAGE.

Storage Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.

Storage Buffer Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.

Reconstitution Reconstitute at 250 μg/mL in sterile water.

GENE INFORMATION

Gene Name PCNT pericentrin [Homo sapiens (human)]

Official Symbol PCNT

Synonyms PCNT; pericentrin; PCNT2, pericentrin 2 (kendrin); KEN; kendrin; KIAA0402; PCN; PCNTB; SCKL4; Seckel syndrome 4; pericentrin B; pericentrin-2; pericentrin-B; pericentrin-380; MOPD2; PCNT2; PCTN2;

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Gene ID 5116

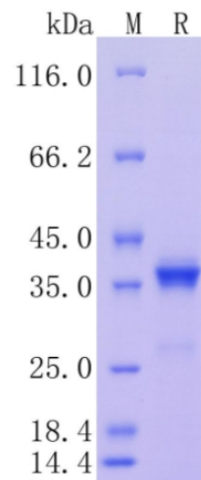
mRNA Refseq NM_006031

Protein Refseq NP_006022

MIM 605925

UniProt ID O95613

Protein on SDS-PAGE under reducing (R) condition.



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