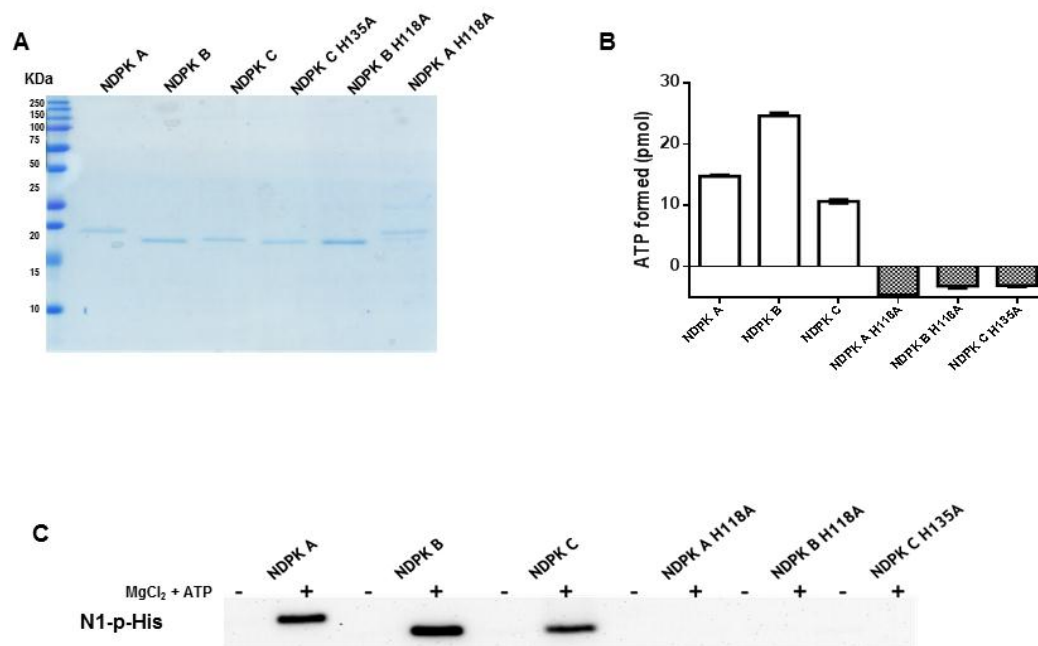


Supplementary Figure S1: Expression of cardiac markers in ARVC-hiPSC-CMs. Shown are representative images of immunohistochemical proof showing successful differentiation of cardiomyocytes by the expression of cardiac markers alpha-actinin (red) and troponin T (TNNT2, green) in ARVC-hiPSC-CMs. Cell nuclei were stained by DAPI.



Supplementary Figure S2. Assessment of the enzymatic activities of recombinantly expressed NDPK isoforms compared to catalytically inactive point mutants. A. 50 ng of purified His₆- tagged NDPK A, B or C or there inactive mutants were separated by 15% SDS-PAGE and visualized with coomassie brilliant blue R-250. B. The NTP/NDP transphosphorylase activity of 90 pM of the indicated recombinant NDPKs was quantified by the ATP formation from 10 μ M ADP and 100 μ M GTP as substrates. Mean \pm SEM from four assay replicates are shown. C. Representative western blot showing the autophosphorylation of NDPKs on their catalytic histidine residue: 100 ng of NDPKs were incubated with and without 1 mM Mg²⁺-ATP, separated by 15% SDS PAGE, and transferred onto a nitrocellulose membrane. The blot was probed with a N1-phospo-histidine antibody specifically recognizing the histidine residues phosphorylated at the N1 position.