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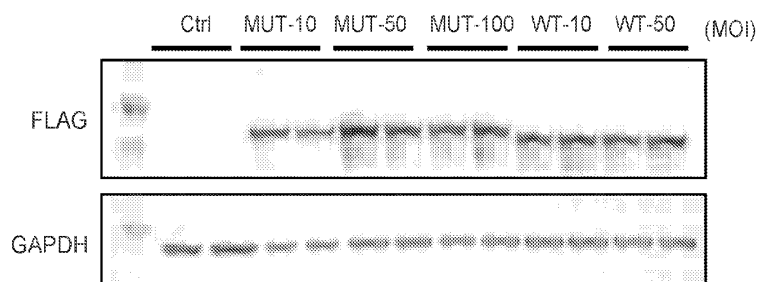


FIG. 1A

(57) **Abstract:** Compositions and methods for preventing and treating cardiac arrhythmia. Methods of preventing or treating arrhythmogenic right ventricular cardiomyopathy (ARVC), comprising administering to a subject in need a prophylactic or treatment effective amount of a composition comprising a plakophilin-2 (PKP2) gene. The composition further comprises an adenovirus-associated vector (AAV) to deliver the PKP-2 gene. In embodiments, the invention provides that the AAV is a cardiotropic AAV serotype and contains a cardiac-specific promoter. Method of treating a cardiovascular disease characterized by abnormal cardiac cell-cell junction complex comprising administering to a subject in need a prophylactic or treatment effective amount of a composition comprising a plakophilin-2 (PKP2) gene.

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