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**(54) Title (EN):** IMPROVED IN VITRO TRANSCRIPTION/TRANSLATION (TXTL) SYSTEM AND USE THEREOF

**(54) Title (FR):** SYSTÈME AMÉLIORÉ DE TRANSCRIPTION/TRADUCTION (TXTL) IN VITRO ET SON UTILISATION

**(57) Abstract:**

**(EN):** Provided herein, in one aspect, is a composition for in vitro transcription and translation, comprising: a treated cell lysate derived from one or more host cells such as bacteria, archaea, plant or animal; a plurality of supplements for gene transcription and translation; an energy recycling system for providing and recycling adenosine triphosphate (ATP); and one or more exogenous additives. Methods for making and using the same are also provided.

**(FR):** Selon un aspect, l'invention concerne une composition pour la transcription et la traduction in vitro, comprenant : un lysat cellulaire traité dérivé d'un ou de plusieurs cellules hôtes telles que des bactéries, des archées, une plante ou un animal ; une pluralité de suppléments pour la transcription et la traduction géniques ; un système de recyclage d'énergie pour fournir de l'adénosine triphosphate (ATP) ; et un ou plusieurs additifs exogènes. L'invention concerne également des procédés de fabrication et d'utilisation de ladite composition.

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