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(54) Title: ENGINEERED CYCLIC GMP-AMP SYNTHASE (CGAS) VARIANT ENZYMES

(57) Abstract: The present invention provides engineered cyclic GMP-AMP synthase (cGAS) enzymes, polypeptides having cGAS activity, and polynucleotides encoding these enzymes, as well as vectors and host cells comprising these polynucleotides and polypeptides. Methods for producing cGAS enzymes are also provided. The present invention further provides compositions comprising the cGAS enzymes and methods of using the engineered cGAS enzymes. The present invention finds particular use in the production of pharmaceutical compounds.



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