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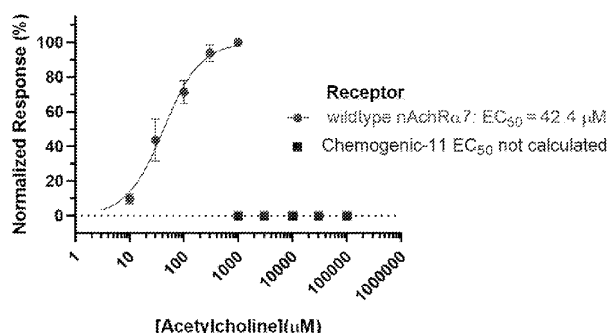
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- (54) **Title:** COMPOSITIONS AND METHODS FOR NEUROLOGICAL DISEASES

FIG. 2A

Acetylcholine dose response



Chemogenic-11 (CR-11):
SEQ ID NO:33 with amino acid substitutions Y115D+L131Q

- (57) **Abstract:** Compositions and methods are provided for modulating the activity of cells using engineered receptors, polynucleotide encoded engineered receptors, and gene therapy vectors comprising polynucleotides encoding engineered receptors. These compositions and methods find particular use in modulating the activity of neurons, for example in the treatment of disease or in the study of neuronal circuits.

[Continued on next page]

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