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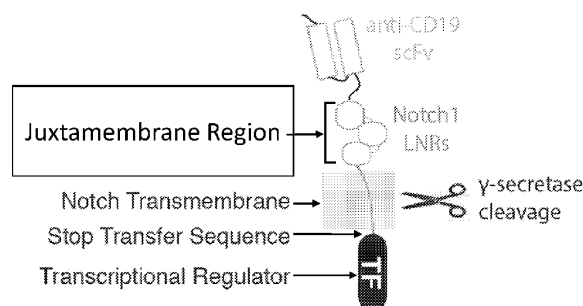


FIG. 1A

(57) Abstract: The present disclosure generally relates to, inter alia, a new class of receptors engineered to modulate transcriptional regulation in a ligand-dependent manner. Particularly, the new receptors, even though derived from Notch, do not require the Notch negative regulatory regions previously believed to be essential for the functioning of the receptors. In addition, the new receptors described herein incorporate an extracellular oligomerization domain to promote oligomer formation of the chimeric receptors. The disclosure also provides compositions and methods useful for producing such receptors, nucleic acids encoding same, host cells genetically modified with the nucleic acids, as well as methods for modulating an activity of a cell and/or for the treatment of various health conditions such as cancers.

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