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(54) Title: T1R HETERO-OLIGOMERIC TASTE RECEPTORS, CELL LINES THAT EXPRESS SAID RECEPTORS, AND TASTE COMPOUNDS

(57) Abstract: The invention relates to compounds that specifically bind a T1R1/T1R3 or T1R2/T1R3 receptor or fragments or subunits thereof. The present invention also relates to the use of hetero-oligomeric and chimeric taste receptors comprising T1R1/T1R3 and T1R2/T1R3 in assays to identify compounds that respectively respond to umami taste stimuli and sweet taste stimuli. Further, the invention relates to the constitutive of cell lines that stably or transiently co-express a combination of T1R1 and T1R3; or T1R2 and T1R3; under constitutive or inducible conditions. The use of these cells lines in cell-based assays to identify umami and sweet taste modulatory compounds is also provided, particularly high throughput screening assays that detect receptor activity by use of fluorometric imaging.

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