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(54) **Title:** METHOD OF IDENTIFYING MALODOR MODULATING COMPOUNDS

(57) **Abstract:** Provided herein are polypeptides that bind to the malodour-causing substance DMTS. Also provided are nucleic acid sequences that encode for the polypeptides. Further provided herein is a method for identifying a compound that binds, suppresses, blocks, inhibits, and/or modulates the activity of one or more olfactory receptor that is activated by the malodor-causing substance DMTS comprising a) contacting the receptor, or a chimera or fragment thereof with a compound and b) determining whether the compound has an effect on the activity of the receptor. Further provided is an expression vector comprising the nucleic acid encoding the polypeptides described as well as a non-human organism or a host cell modified to express a receptor that is activated by DMTS. Also provided is the use of the polypeptides for identifying malodor modulating compounds.

WO 2018/162638 A1