MRGPRX2 Antagonists for Itch and Inflammation

Tech ID: 32561 / UC Case 2022-023-0

TECHNOLOGY DESCRIPTION

The MRGPRX (mas-related G protein-coupled receptor X) subfamily is only expressed in primates including humans and belongs to the group of orphan receptors, for which the cognate agonists are unknown. The MRGX2 receptor subtype exhibits unique features that distinguish it from other GPCRs. It is involved in mast cell degranulation, nociception and itching, and represents a fundamentally new drug target.

UCSF scientists developed potent and selective antagonists of the MRGPRX2 receptor with affinities in the 50 nM range. These molecules show robust activity in cell culture models. Preliminary studies indicate that the molecules may be active against itch and inflammation in non-human primates.

PATENT STATUS

Patent Pending

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INVENTORS

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OTHER INFORMATION

KEYWORDS

dermatology, itch, inflammation, small molecule

CATEGORIZED AS

- Medical
- Disease: Autoimmune and Inflammation
- Disease: Dermatology
- Therapeutics

RELATED CASES

2022-023-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Positive allosteric modulators (PAMs) of calcium sensing receptor (CaSR) for hyperparathyroidism

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