

Accepted Manuscript

G protein-coupled receptor kinase (GRK)2 is a key negative regulator of itch: L-glutamine attenuates itch via a rapid induction of GRK2 in an ERK-dependent way

Yu-Na Im, Yu-Dong Lee, Jeong-Soo Park, Hae-Kyoung Kim, Suhn-Young Im, Hwa-Ryung Song, Hern-Ku Lee, Myung-Kwan Han

PII: S0022-202X(18)30220-3

DOI: [10.1016/j.jid.2018.02.036](https://doi.org/10.1016/j.jid.2018.02.036)

Reference: JID 1327

To appear in: *The Journal of Investigative Dermatology*

Received Date: 8 October 2017

Revised Date: 2 February 2018

Accepted Date: 10 February 2018

Please cite this article as: Im Y-N, Lee Y-D, Park J-S, Kim H-K, Im S-Y, Song H-R, Lee H-K, Han M-K, G protein-coupled receptor kinase (GRK)2 is a key negative regulator of itch: L-glutamine attenuates itch via a rapid induction of GRK2 in an ERK-dependent way, *The Journal of Investigative Dermatology* (2018), doi: [10.1016/j.jid.2018.02.036](https://doi.org/10.1016/j.jid.2018.02.036).

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



**G protein-coupled receptor kinase (GRK)2 is a key negative
regulator of itch: L-glutamine attenuates itch via a rapid
induction of GRK2 in an ERK-dependent way**

**Yu-Na Im^{1,4}, Yu-Dong Lee^{1,4}, Jeong-Soo Park^{1,4}, Hae-Kyoung Kim¹, Suh-Young
Im², Hwa-Ryung Song³, Hern-Ku Lee^{3,*}, and Myung-Kwan Han^{3,*}**

1 Department of Immunology and Institute for Medical Science, Chonbuk National University Medical School, Jeonju 561-180, Republic of Korea

2 Department of Biological Sciences, College of Natural Sciences, Chonnam National University, Gwangju 500-757, Republic of Korea

3 Department of Microbiology and Institute for Medical Science, Chonbuk National University Medical School, 561-712, Jeonju, Republic of Korea

⁴These authors contributed equally to this work.

*These authors shared senior authorship.

Correspondence: Professor. Myung Kwan Han, Department of Microbiology, Chonbuk National University Medical School, Jeonju 54896, Republic of Korea.

E-mail: iamtom@chonbuk.ac.kr

Professor Hern-Ku Lee, MD, PhD. Department of Immunology, Chonbuk National

Download English Version:

<https://daneshyari.com/en/article/8715816>

Download Persian Version:

<https://daneshyari.com/article/8715816>

[Daneshyari.com](https://daneshyari.com)