

OPEN ACCESS

EDITED AND REVIEWED BY
Sijie Fang,
Shanghai Jiao Tong University, China

*CORRESPONDENCE

Eun Jig Lee

⊠ ejlee@yuhs.ac

Jin Sook Yoon

RECEIVED 20 September 2025 REVISED 06 October 2025 ACCEPTED 07 November 2025 PUBLISHED 17 November 2025

CITATION

Kim W, Seo M-K, Kim YJ, Choi SH, Ku CR, Kim S, Lee EJ and Yoon JS (2025) Correction: Role of the suppressor of cytokine signaling-3 in the pathogenesis of Graves' orbitopathy. *Front. Endocrinol.* 16:1709476. doi: 10.3389/fendo.2025.1709476

COPYRIGHT

© 2025 Kim, Seo, Kim, Choi, Ku, Kim, Lee and Yoon. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

Correction: Role of the suppressor of cytokine signaling-3 in the pathogenesis of Graves' orbitopathy

Wonjin Kim¹, Mi-Kyoung Seo², Yong Joon Kim³, Soo Hyun Choi³, Cheol Ryong Ku⁴, Sangwoo Kim ⁵, Eun Jig Lee^{4*} and Jin Sook Yoon^{3*}

¹Division of Endocrinology and Metabolism, Department of Internal Medicine, CHA Gangnam Medical Center, CHA University School of Medicine, Seoul, Republic of Korea, ²Channing Division of Network Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, United States, ³Institute of Vision Research, Department of Ophthalmology, Yonsei University College of Medicine, Seoul, Republic of Korea, ⁴Division of Endocrinology and Metabolism, Department of Internal Medicine, Yonsei University College of Medicine, Seoul, Republic of Korea, ⁵Department of Biochemical Systems Informatics, Brain Korea 21 PLUS Project for Medical Science, Yonsei University College of Medicine, Seoul, Republic of Korea

KEYWORDS

Graves' orbitopathy, orbital fibroblast, *SOCS3*, suppressor of cytokine signaling 3, inflammation, adipogenesis

A Correction on

Role of the suppressor of cytokine signaling-3 in the pathogenesis of Graves' orbitopathy

By Kim W, Seo M-K, Kim YJ, Choi SH, Ku CR, Kim S, Lee EJ and Yoon JS (2025) *Front. Endocrinol.* 16:1527275. doi: 10.3389/fendo.2025.1527275

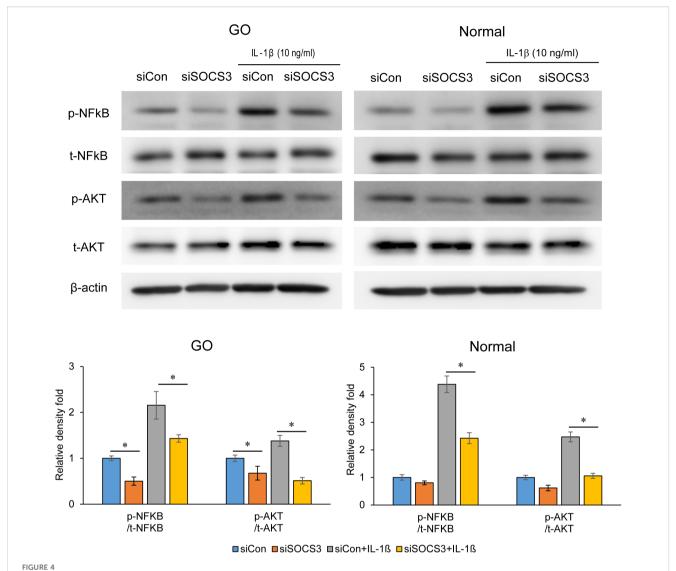
There was a mistake in **Figure 4** as published. **Figures 3**, **4** appear to be identical. The corrected Figure 4 appears below.

The original version of this article has been updated.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

Kim et al. 10.3389/fendo.2025.1709476



Effects of SOCS3 suppression on the activation of NF- κ B and AKT signaling proteins following IL-1 β treatment. Orbital fibroblasts derived from patients with GO (n=3) and healthy individuals (n=3) were transfected with 20 nM si-SOCS3 or si-con and cultured for 48 h, followed by IL-1 β treatment (10 ng/mL) for 1 h, which resulted in an increase in the level of phosphorylated forms of NF- κ B and AKT. Protein levels determined using densitometry were normalized to the β -actin levels in the same sample. Results are presented as the mean relative density \pm SD for three individual samples and graphs are representative of three independent experiments (*p < 0.05 between si-con and si-SOCS3; si-con + IL-1 β and si-SOCS3 + IL-1 β). AKT, protein kinase B; GO, Graves' orbitopathy; IL-1 β , interleukine-1 beta; ICAM-1, intercellular adhesion molecule 1; NF- κ B, nuclear factor kappa-light-chain-enhancer of activated B cells; SOCS3, suppressor of cytokine signaling-3.