

# Deferoxamine Induces Endoplasmic Reticulum Stress in PC12 Cells

Young-Bum Yoo<sup>a</sup>, Kyeong Ryong Lee<sup>b</sup>,  
Seung-Whan Kim<sup>c</sup>, Kisang Kwon<sup>d</sup>,  
Tae-Won Goo<sup>e</sup>, and O-Yu Kwon<sup>d,\*</sup>

<sup>a</sup> Department of Surgery, College of Medicine,  
Konkuk University, Seoul 143-729, Korea

<sup>b</sup> Department of Emergency Medicine,  
College of Medicine, Konkuk University,  
Seoul 143-729, Korea

<sup>c</sup> Department of Emergency Medicine, Chungnam  
National University, College of Medicine,  
Taejon 301-747, Korea

<sup>d</sup> Department of Anatomy, Chungnam National  
University, College of Medicine, Taejon 301-747,  
Korea. Fax: +82-42-5 86-48 00.  
E-mail: oykwon@cnu.ac.kr

<sup>e</sup> Department of Agricultural Biology, National  
Institute of Agricultural Science and Technology,  
RDA, Suwon 441-100, Korea

\* Author for correspondence and reprint requests

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Deferoxamine (DFA, *N'*-[5-(acetyl-hydroxy-amino)-pentyl]-*N*-[5-[3-(5-aminopentyl-hydroxy-carbamoyl) propanoylamino]pentyl]-*N*-hydroxy-butane diamide) is a chelating agent used to remove excess iron from the body and to reduce organ and tissue damage. DFA enhances both iron regulatory protein 1 (IRP1) expression and its endoplasmic reticulum (ER) membrane-binding activity, as occurs in hypoxia, an ER stress, in cultured cells. Here, we show that DFA promotes ER stress via an ER signal pathway.

*Key words:* Deferoxamine (DFA), Endoplasmic Reticulum (ER) Stress