



Title	Elevated 20-Hete contributes to the improved endothelial function in lipocalin-2 deficient mice
Author(s)	Fan, P; Song, E; Xu, A; Feletou, M; Vilaine, JP; Vanhoutte, PM; Wang, Y
Citation	The 10th Anniversary EDHF Meeting (EDHF 2012), Vaux-de-Cernay, France, 27-30 June 2012. In Journal of Vascular Research, 2012, v. 49 suppl. 2, abstract no. 16
Issued Date	2012
URL	http://hdl.handle.net/10722/165455
Rights	Journal of Vascular Research. Copyright © S Karger AG.

ELEVATED 20-HETE CONTRIBUTES TO THE IMPROVED ENDOTHELIAL FUNCTION IN LIPOCALIN-2 DEFICIENT MICE

Pengcheng Fan, Erfei Song, Aimin Xu, Michel Félétou, Jean-Paul Vilaine Paul M Vanhoutte and Yu Wang

1Pharmacology and Pharmacy, University of Hong Kong, China and 2Institut Recherches Servier, Suresnes, France

Lipocalin-2 is a glycoprotein constitutively secreted from adipocytes. In obese human subjects, the circulating lipocalin-2 level is elevated and positively correlated with systolic arterial blood pressure, dyslipidemia and insulin resistance. In mice, deficiency of lipocalin-2 protects against aging- and obesity-induced endothelial dysfunction and CYP4502C expression in arterial tissues. High pressure liquid chromatography combined with enzyme-linked immunosorbent analysis revealed that the 20-HETE content was up-regulated significantly in the aorta of lipocalin-2 knockout mice, or wild type mice treated with sulphaphenazole, whereas the amount of 11, 12-diHETE decreased in the aortic tissues of these mice. Incubation with 20-HETE (10^{-7} M) significantly attenuated the contractions induced by U46619 in rings of aortae and by acetylcholine in rings of carotid arteries. In summary, increased production of 20-HETE contributes to the improved endothelial function in lipocalin-2 deficient mice.