

Supplementary material

Identification of the ghrelin and cannabinoid CB₂ receptor heteromer. Functionality and marked upregulation in striatal neurons of siblings of mice under a high-fat diet.

Running title. Ghrelin-cannabinoid receptor interactions

Jaume Lillo^{1,2,#}, Alejandro Lillo^{3,#}, David A. Zafra³, Cristina Miralpeix⁴, Rafael Rivas-Santisteban^{1,2}, Núria Casals^{4,5}, Gemma Navarro^{1,3,6,##*} Rafael Franco^{1,2,7, ,#*},

Affiliations:

¹ Centro de Investigación Biomédica en Red Enfermedades Neurodegenerativas (CiberNed), National Institute of Health Carlos iii. Valderrebollo, 5, 28031 Madrid, Spain.

² Departament de Bioquímica i Biomedicina Molecular, Universitat de Barcelona, 08028 Barcelona, Spain

³ Department of Biochemistry and Physiology, Faculty of Pharmacy and Food Science, University of Barcelona, Barcelona, Spain

⁴ Basic Sciences Department, Faculty of Medicine and Health Sciences, Universitat Internacional de Catalunya, Sant Cugat del Vallès, Spain

⁵ Centro de Investigación Biomédica en Red de Fisiopatología de la Obesidad y la Nutrición (CIBEROBN), Instituto de Salud Carlos III, Madrid, Spain

⁶ Institut de Neurociències de la Universitat de Barcelona (UBNeuro), Barcelona. Spain

⁷ School of Chemistry. University of Barcelona, Barcelona, Spain.

Equal contribution

***Corresponding authors:**

Rafael Franco (rfranco123@gmail.com; rfranco@ub.edu)

School of Biology. Universitat de Barcelona.

Diagonal 643. Prevosti Building.

Barcelona 08028. Spain

Tel +34 934021208

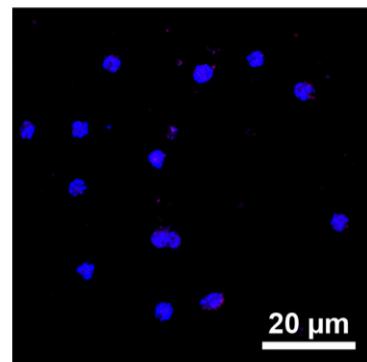
Gemma Navarro (g.navarro@ub.edu)

School of Pharmacy. Universitat de Barcelona

Joan XXIII, 29-31

Barcelona 08028. Spain

Tel +34 934034500



Supplementary Figure S1: Negative control of the *in situ* proximity ligation assay (PLA) in primary striatal neurons, undertaken by omitting one of the primary antibodies. Similar results were performed in samples from 5 animals coming from SD mothers and 5 from HFD mothers. Scale bar: 20 μ m.

Western compilation:

