

Ovarian mitochondrial dynamics and cell fate regulation in an androgen-induced rat model of polycystic ovarian syndrome

Reza Salehi¹, Hannah L. Mazier^{1, 2}, Anne-Laure Nivet^{1,2}, Arkadiy A. Reunov³, Patricia Lima¹, Qi Wang¹, Arianna Fiocco^{2,4}, *Ciro Isidoro*^{4*} and Benjamin K. Tsang^{1, 2*}

¹Chronic Disease Program, Ottawa Hospital Research Institute, Ottawa, Canada

²Department of Cellular & Molecular Medicine and Obstetrics & Gynecology, University of Ottawa, Ottawa, Canada

³Electron Microscopy Laboratory, University of Ottawa Heart Institute, Ottawa, Canada

⁴Laboratory of Molecular Pathology, Department of Health Sciences, Università del Piemonte Orientale "A. Avogadro", Via P. Solaroli 17, 28100, Novara, Italy

Abbreviated title: Mitochondrial dynamics and cell death in PCOS

Keywords: Drp1, LC3, Polycystic ovarian syndrome, Androgen, Autophagy, Gonadotropin

*Co-corresponding authors:

Professor Benjamin K. Tsang

The Ottawa Hospital – General Campus; Critical Care Wing - 3 rd Floor, Room W3107
[501 Smyth Road](#), Mail Box #511, Ottawa, Ontario K1H 8L6

Tel: 1-613-798-5555, Ext. 72926 Email: btsang@ohri.ca

Professor *Ciro Isidoro*

Laboratory of Molecular Pathology and Nanobioimaging, Department of Health Sciences, Università del Piemonte Orientale "A. Avogadro", Via P. Solaroli 17, 28100, Novara, Italy.

Tel: +39 0321 660507 Email: ciro.isidoro@med.uniupo.it

Fig. 5

eCG (20 IU/rat)
DHT (83 μ g/day)

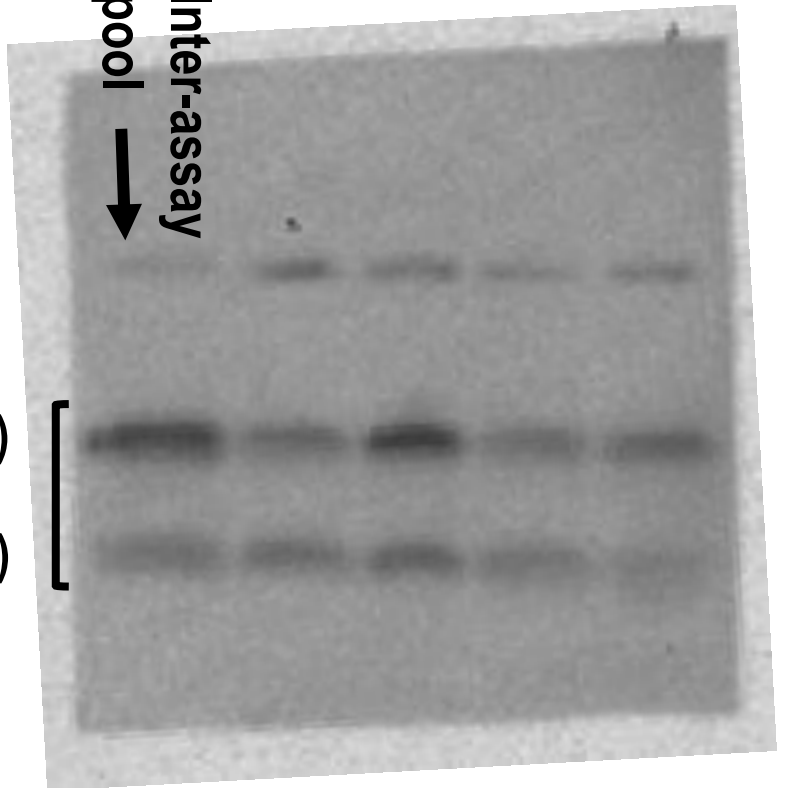
-	-	+	+
-	+	-	+

Inter-assay
pool
↓

LC3I (16 KDa)

LC3II (13 KDa)

[



eCG (20 IU/rat)
DHT (83 μ g/day)

-	-	+	+
-	+	-	+

Inter-assay
pool
↓

P62 (62 KDa)

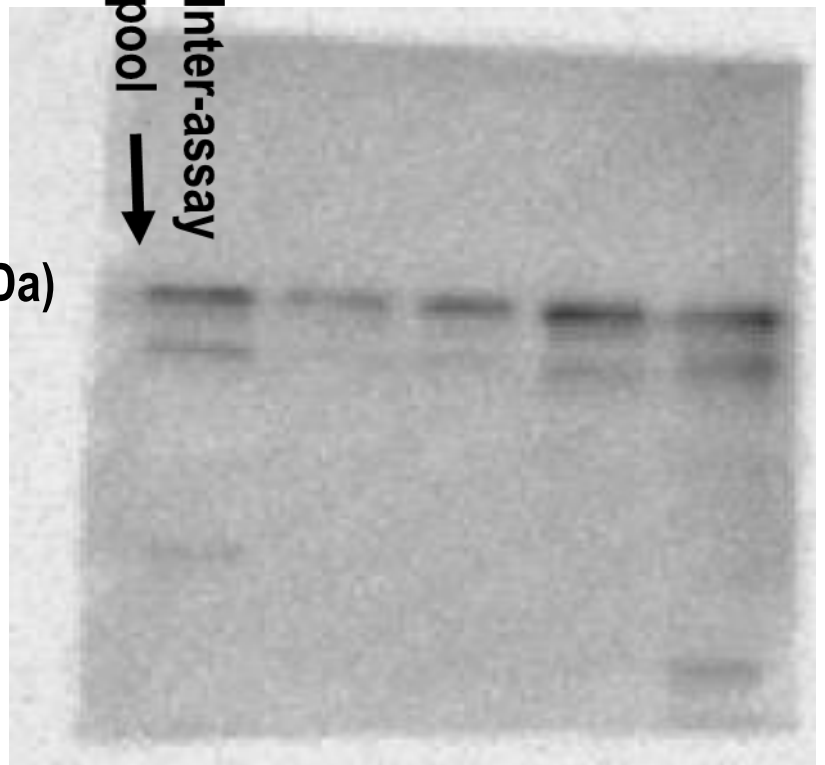


Fig. 5

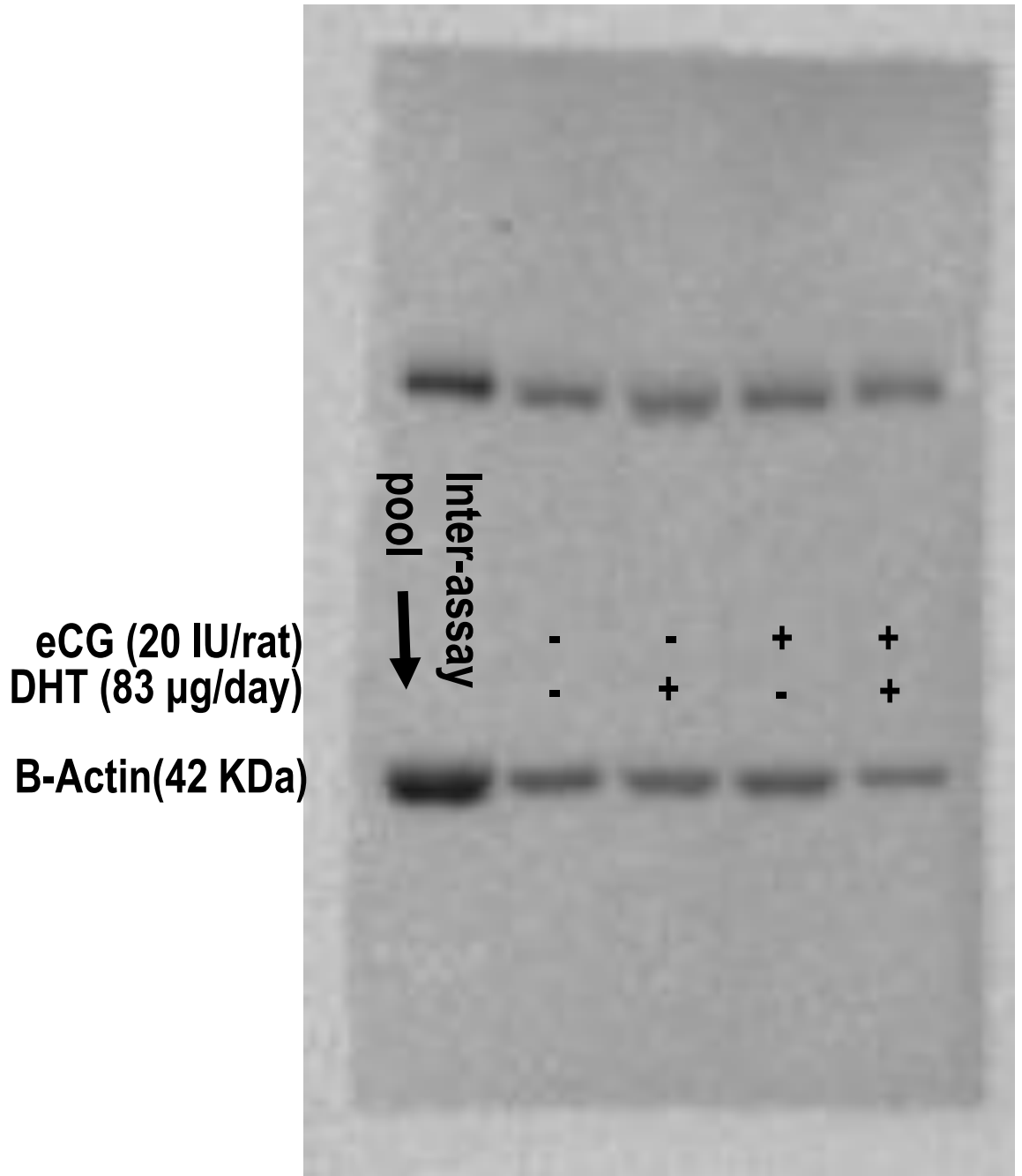


Fig. 7

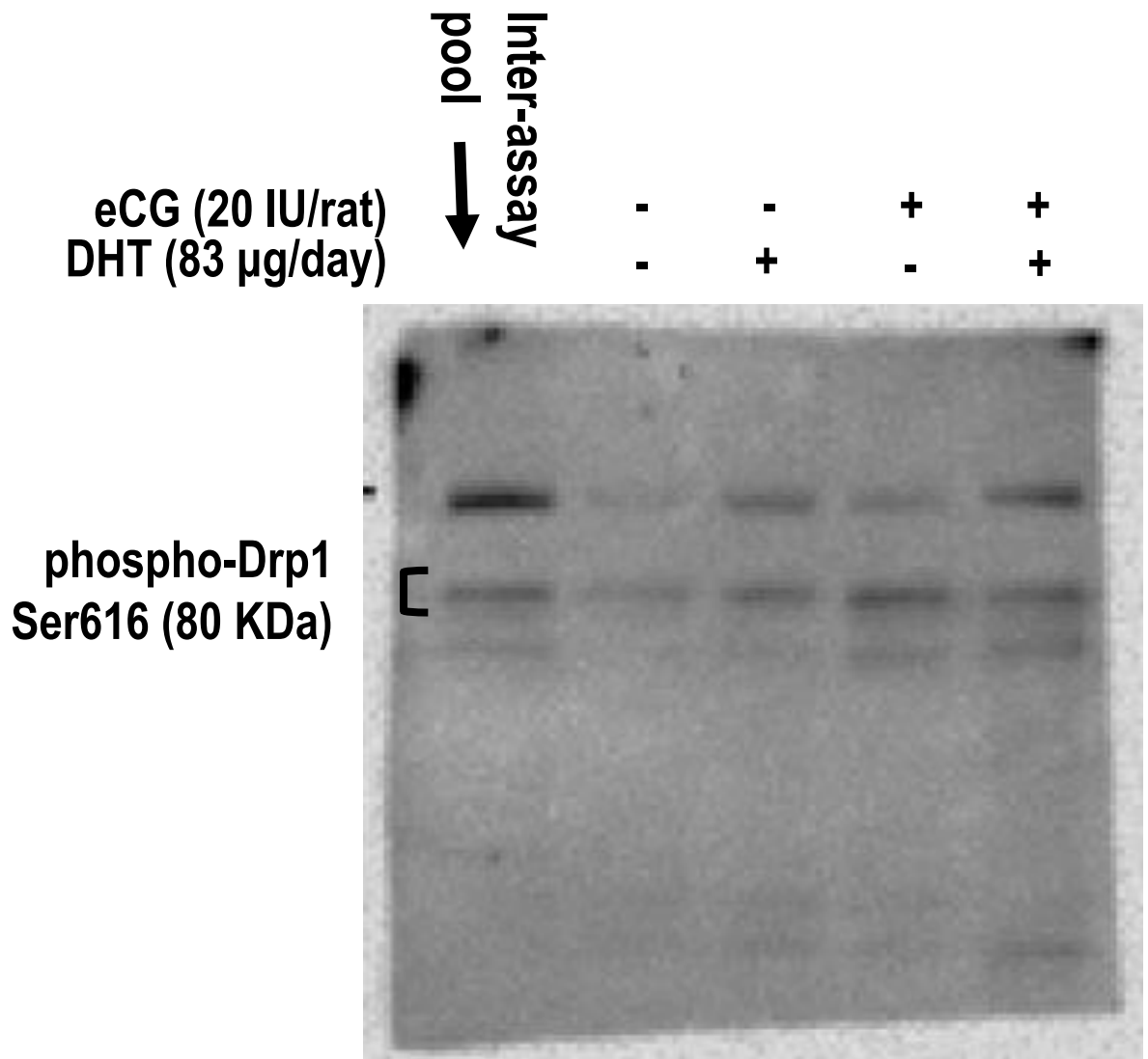


Fig. 7

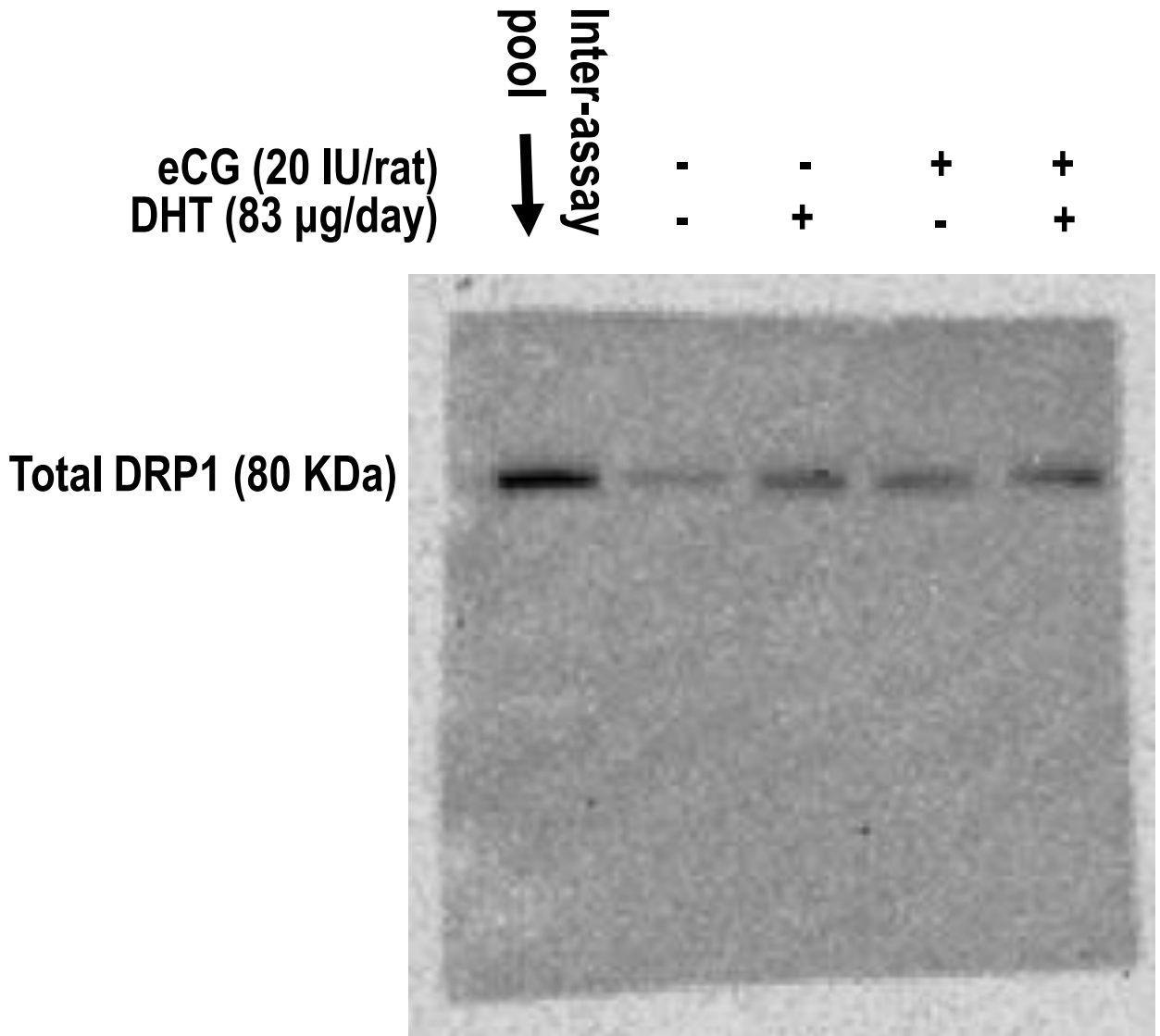


Fig. 7

eCG (20 IU/rat)
DHT (83 μ g/day)
B-Actin(42 KDa)

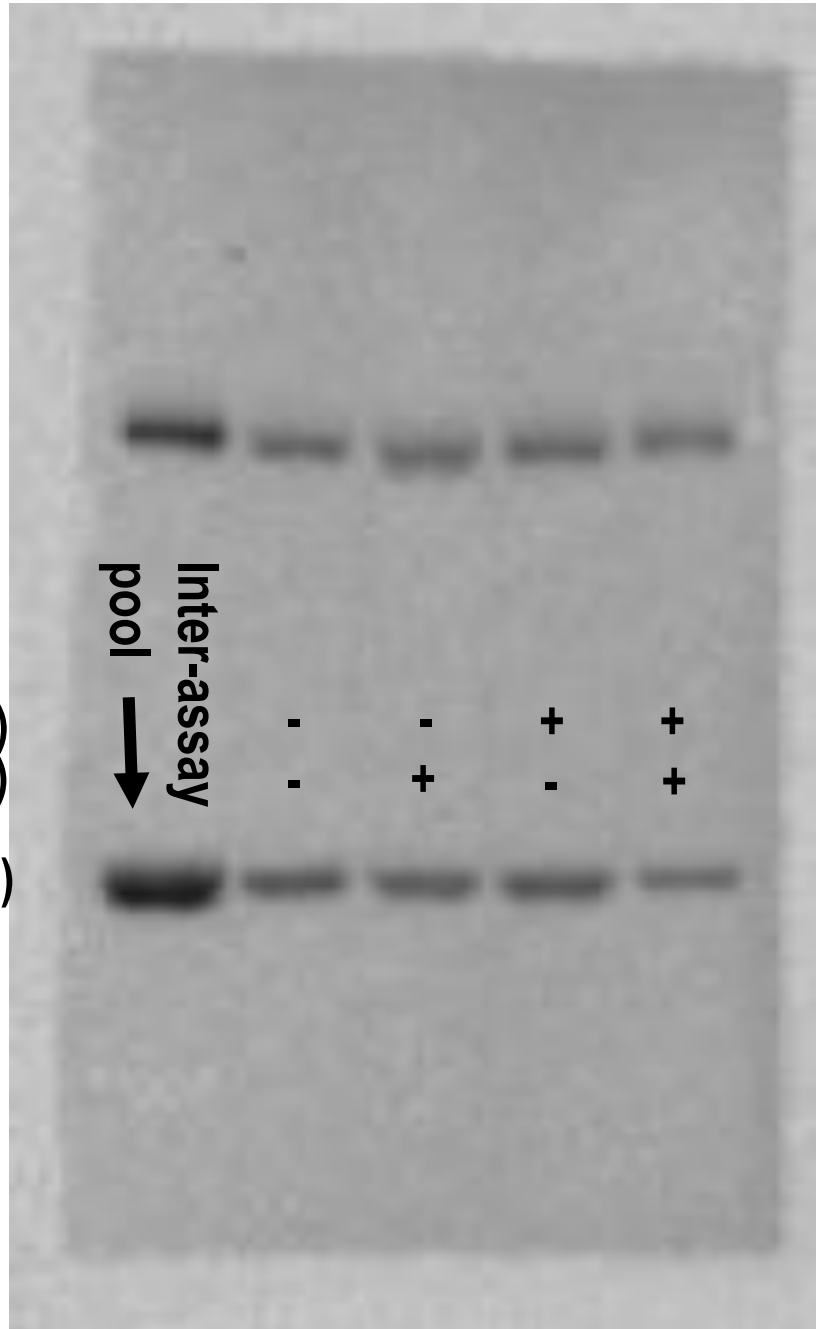


Fig. 7

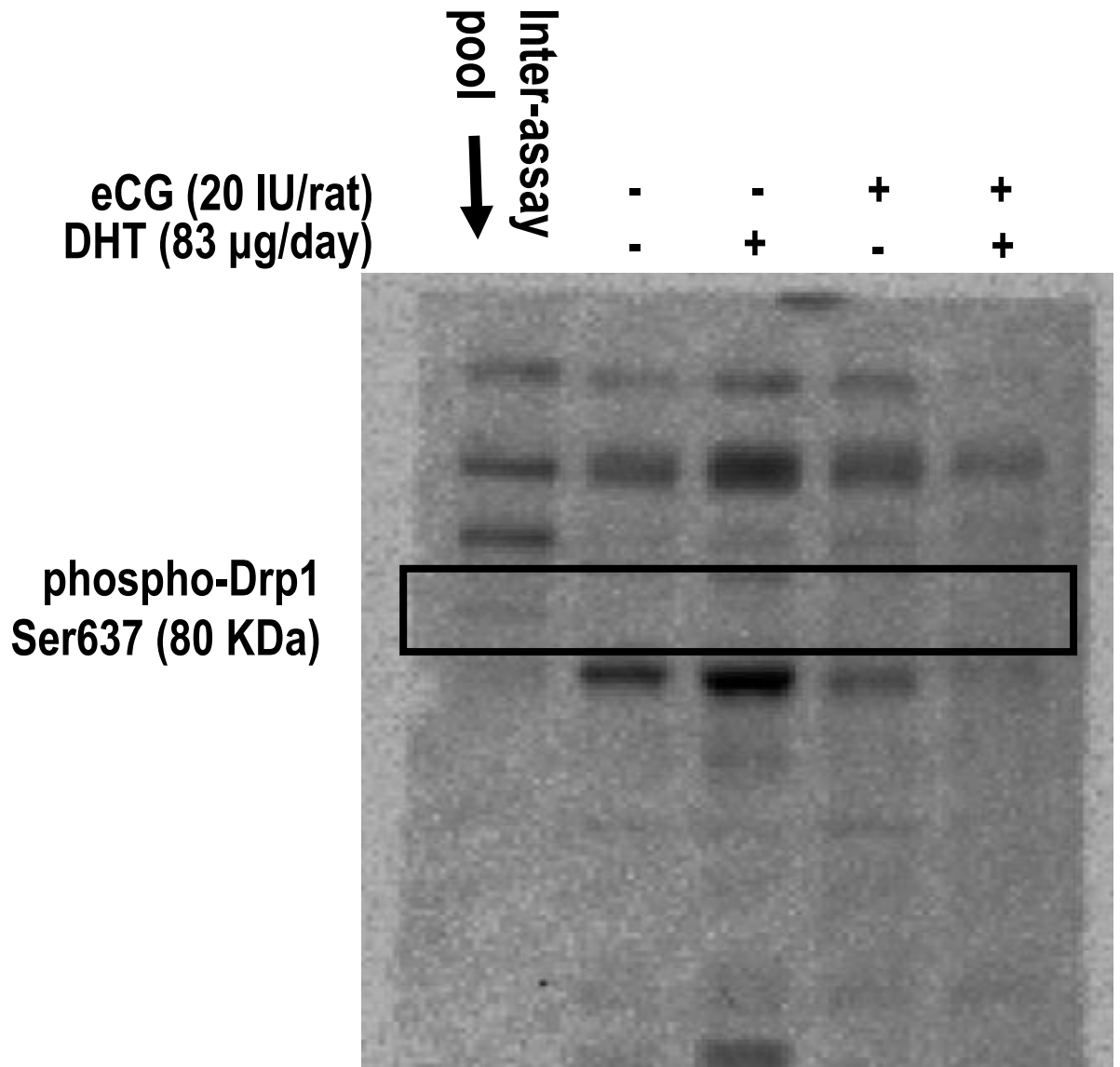


Fig. 7

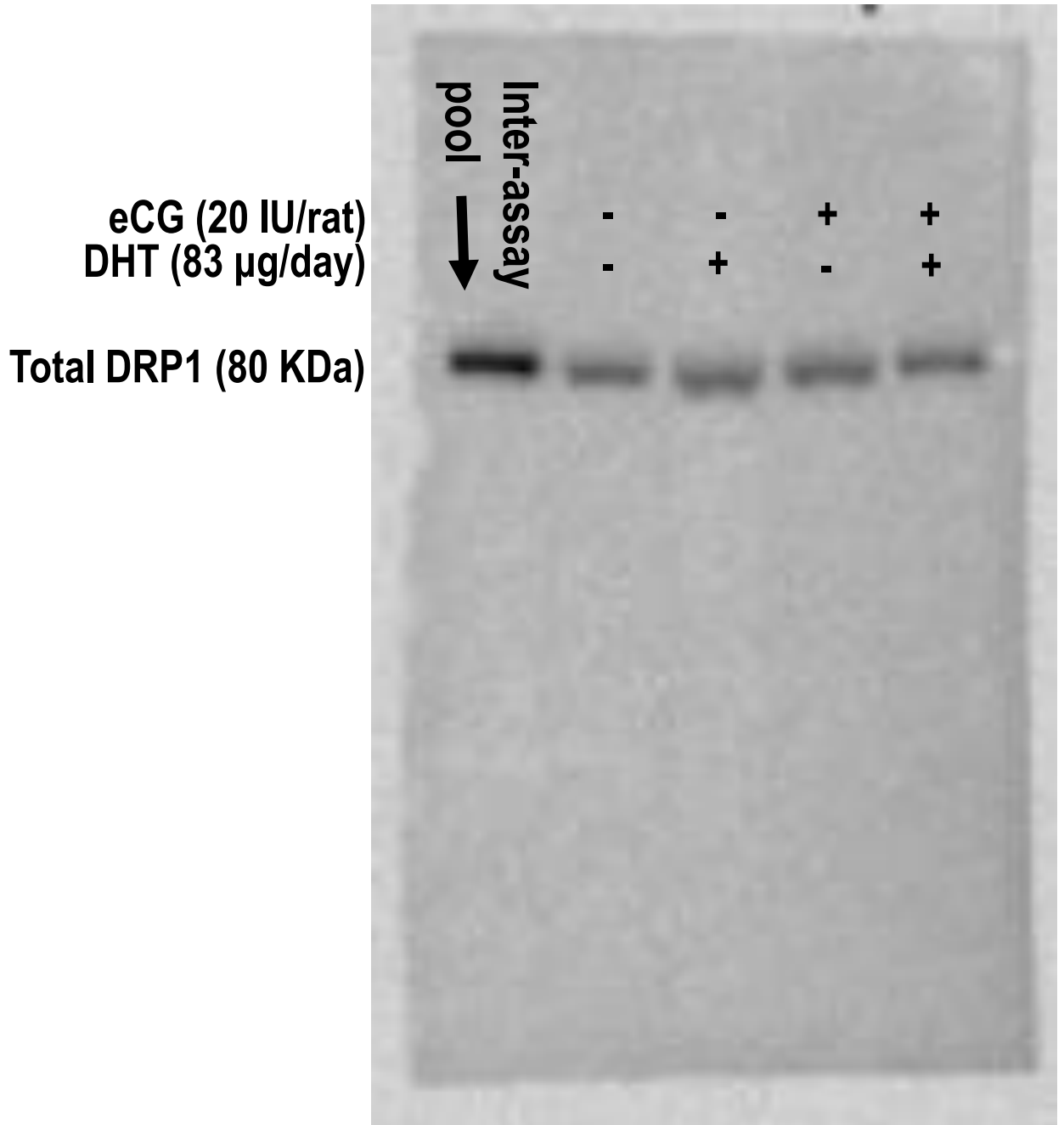


Fig. 7

eCG (20 IU/rat)
DHT (83 µg/day)
B-Actin(42 KDa)

