## A novel cytoplasmic adaptor for RAR and TR functions as a derepressor of RAR in the absence of retinoic acid\*

Ui-Hyun Park, <sup>1</sup> Eun-Joo Kim, <sup>2†</sup> and Soo-Jong Um<sup>1†</sup>

## Running title: CART1 is a derepressor of RAR

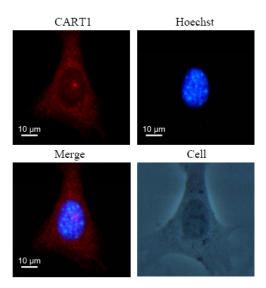
<sup>†</sup>Correspondence to:

(E.-J.K) Tel: (82) 31-8005-3198; Fax: (82) 31-8005-3191; E-mail: nbrejk@dankook.ac.kr

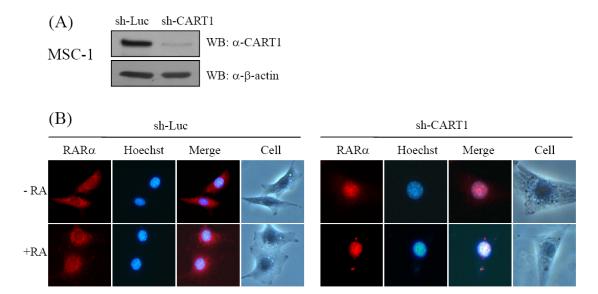
(S.-J.U) Tel: (82) 2-3408-3641; Fax: (82) 2-3408-4334; umsj@sejong.ac.kr

<sup>&</sup>lt;sup>1</sup>Department of Bioscience and Biotechnology, Sejong University, 98 Kunja-dong, Kwangjin-gu, Seoul 143-747, Korea

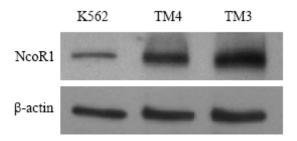
<sup>&</sup>lt;sup>2</sup>Department of Molecular Biology, Dankook University, 126 Jukjeon-dong, Suji-gu, Yongin-si, Gyeonggi-do 448-701, Korea



Supplemental Fig. 1. Subcellular location of endogenous CART1 in TM4 cells. TM4 cells were fixed and permeabilized. Cells were then stained with rabbit anti-CART1 polyclonal antibody and Texas red-conjugated anti-rabbit antibody, and observed by fluorescence microscopy. Hoechst was used to localize chromosomal DNA in the nucleus.



Supplemental Fig. 2. Effect of CART1 knockdown on subcellular location of RAR in MSC-1 mouse Sertoli cells. (*A*) Expression of CART1. MSC-1 cells were transected with either control small hairpin (sh) or CART1-specific sh RNA using Lipofectamine. CART1 expression was monitored by WB.  $\beta$ -actin was used as an internal control. (*B*) Subcellular location of endogenous RAR $\alpha$ . MSC-1 cells were trasfected as indicated, fixed, and permeabilized. Cells were then stained with rabbit anti-RAR $\alpha$  polyclonal antibody and Texas red-conjugated antirabbit antibody, and observed by fluorescence microscopy.



Supplemental Fig. 3. Expression of NcoR1. Cellular extracts were prepared from various cell lines as indicated and 80  $\mu$ g lysates were subjected to WB using anti-NcoR1 antibody (1:250; Santa Cruz Biotechnology, Santa Cruz, CA; sc-1609).  $\beta$ -actin was used as an internal control.