

Supplementary Data 1. All markers differentiating between cell types identified in this study.

Supplementary Data 2. Activity-related alpha MN marker genes.

Supplementary Movie 1. Whole tissue clearing of Chat-IRES-Cre; Sun1-sfGFP lumbar spinal cord with immunolabeling of nuclei sequenced in this study.

Lumbar spinal cord sample processed by iDisco using anti-GFP antibodies to detect Sun1-positive nuclei of cholinergic neurons.

Supplementary Movie 2. Whole tissue clearing of Chat-IRES-Cre; Sun1-sfGFP cervical spinal cord with immunolabeling of nuclei sequenced in this study.

Cervical spinal cord region processed by iDisco using anti-GFP antibodies to detect Sun1-positive nuclei of cholinergic neurons.