

Training report for Cellpose model (cellpose_isbi_v09)

Date: 2021-12-09

Training time: 0.0hour(s) 20.0min(s) 36sec(s)

Information for your materials and methods:

The Cellpose model was trained for 500 epochs on 24 paired image patches (image dimensions: (512, 512), with a batch size of 8, using the Cellpose ZeroCostDL4Mic notebook (v 1) (von Chamier & Laine et al., 2020). The model was re-trained from a pretrained model. Key python packages used include tensorflow (v file:///tensorflow-2.7.0-cp37-cp37m-linux_x86_64.whl), Keras (v reprocessing==1.1.2), numpy (v 1.21.4), cuda (v 11.1.105

Build cuda_11.1.TC455_06.29190527_0). The training was accelerated using a Tesla K80 GPU.

Augmentation: The dataset was augmented by a factor of 4

Parameters

Default Advanced Parameters were enabled

Parameter	Value
number_of_epochs	500
batch_size	8
percentage_validation	15
initial_learning_rate	0.0002

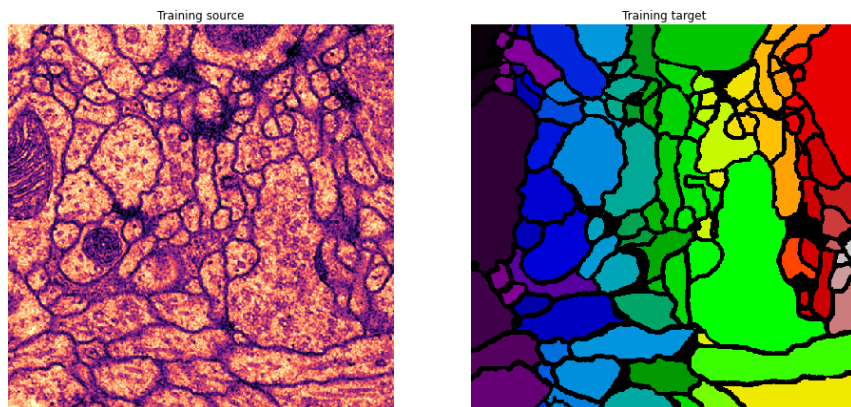
Training Dataset

Training_source: /content/gdrive/MyDrive/Colab Notebooks Testing/cellpose_em/train/image

Training_target: /content/gdrive/MyDrive/Colab Notebooks Testing/cellpose_em/train/label

Model Path: /content/gdrive/MyDrive/Colab Notebooks Testing/cellpose_em/Models/cellpose_isbi_v09

Example Training pair



References:

- ZeroCostDL4Mic: von Chamier, Lucas & Laine, Romain, et al. "ZeroCostDL4Mic: an open platform to simplify access and use of Deep-Learning in Microscopy." BioRxiv (2020).
- Cellpose: Stringer, Carsen, et al. "Cellpose: a generalist algorithm for cellular segmentation." Nature Methods 18, pages100-106(2021).

Important:

Remember to perform the quality control step on all newly trained models
Please consider depositing your training dataset on Zenodo