

Training report for Cellpose model (171121)

Date: 2021-11-17

Training time: 2.0hour(s) 57.0min(s) 40sec(s)

Information for your materials and methods:

The Cellpose model was trained for 500 epochs on 214 paired image patches (image dimensions: (520, 696), 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: No augmentation was used for training.

Parameters

Default Advanced Parameters were enabled

Parameter	Value
number_of_epochs	500
batch_size	8
percentage_validation	10
initial_learning_rate	0.0002

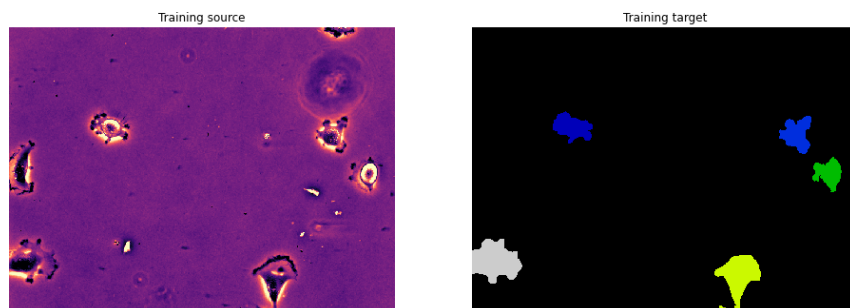
Training Dataset

Training_source: /content/gdrive/Shareddrives/DL_Datasets/Training_datasets/Cellpose/PhC-C2DH-U373/Training data/BF

Training_target: /content/gdrive/Shareddrives/DL_Datasets/Training_datasets/Cellpose/PhC-C2DH-U373/Training data/GT

Model Path: /content/gdrive/Shareddrives/DL_Datasets/Training_datasets/Cellpose/PhC-C2DH-U373/model/171121

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