

Supplementary materials



Figure 1: Original LASV image (311out4381.png) with high degree (51.22) of sharpness.



Figure 2: Original LASV image (306out11856.png) with low degree (6.23) of sharpness.

Video number	305	306	309	310	311	Total/Average
Total number of images (X1)	25542	27659	27020	28268	27280	135769
Trained Scratch (X2)	330	2350	3860	5820	1290	13650
Trained Non Scratch (X3)	2786	2834	2644	2526	2860	13650
Trained Total (X4=X2+X3)	3116	5184	6504	8346	4150	27300
Trained Scratch Ratio (X2/X1)	0.0129	0.0849	0.1428	0.2058	0.0472	0.1005
Trained Non-Scratch Ratio (X3/X1)	0.1091	0.1027	0.0978	0.0893	0.1048	0.1005
Trained Total Ratio (X4/X1)	0.1220	0.1876	0.2406	0.2951	0.1520	0.2010
Scratch Test True (X5)	203	2100	3587	5394	762	12046
Scratch Test False (X6)	127	250	273	426	528	1604
Scratch Test Total (X7=X5+X6)	330	2350	3860	5820	1290	13650
Non-Scratch Test True (X8)	24796	21465	13653	10874	25312	96100
Non-Scratch Test False (X9)	416	3844	9507	11574	678	26019
Non-Scratch Test Total (X10=X8+X9)	25212	25309	23160	22448	25990	122119
Overall Sensitivity (X5/X7)	0.6152	0.8936	0.9293	0.9268	0.9558	0.8824
Overall Specificity (X8/X10)	0.9835	0.8481	0.5895	0.4844	0.9739	0.7869
Overall Accuracy ((X5+X8)/X1)	0.9787	0.8520	0.638	0.5755	0.9558	0.7965
C48/80 injection	No	Yes	Yes	Yes	Yes	Yes

Table 1: Overall statistics of the LASV images used for the training and the testing steps of machine-learning based image classification of the five LASVs and its overall performances, including accuracy, sensitivity and specificity. For video 305, 150 mM saline was injected subcutaneously to the neck of C57BL/6.