

Table 1: **Mean AUPR-Success on our NINCO dataset.** Higher is better. The difference to MSP is shown in red if a method performs worse, and in green if it improves. Bold values mark the best-performing method per model. Sample sizes were fixed such that there are five times as many ID samples than OOD samples.

pre	acc.	model	MSP	MaxL	Ener	KL-M	Maha	RMaha	ViM	E+R	KNN	Cos	MCM/RCos
21k	86.0	ViT-B-384	97.0	98.1 +1	98.1 +1	96.0 -1	98.9 +2	98.6 +2	98.5 +2	98.2 +1	96.4 -1	98.0 +1	98.0 +1
	84.5	ViT-B-224	96.5	97.7 +1	97.7 +1	95.7 -1	98.6 +2	98.4 +2	98.2 +2	97.6 +1	95.4 -1	97.5 +1	97.4 +1
	86.3	Swinv2-B-256	96.1	95.6 -0	95.1 -1	96.2 +0	97.2 +1	97.3 +1	97.5 +1	96.4 +0	95.7 -0	97.3 +1	97.5 +1
	86.7	DeiT3-B-384	93.7	90.7 -3	89.5 -4	95.5 +2	97.5 +4	97.6 +4	97.3 +4	92.2 -2	96.6 +3	97.6 +4	97.7 +4
	85.7	DeiT3-B-224	93.5	90.8 -3	89.6 -4	95.1 +2	97.3 +4	97.3 +4	96.9 +3	91.7 -2	96.1 +3	97.3 +4	97.2 +4
	86.3	CnvNxt-B	96.5	95.8 -1	95.2 -1	96.9 +0	98.1 +2	98.1 +2	98.3 +2	96.0 -0	96.7 +0	98.0 +2	98.1 +2
	84.1	CnvNxt-T	95.7	95.4 -0	95.1 -1	95.9 +0	97.6 +2	97.3 +2	98.2 +3	95.4 -0	96.4 +1	97.3 +2	97.4 +2
	82.3	BiT-m	95.8	96.1 +0	96.0 +0	95.0 -1	97.9 +2	97.6 +2	98.3 +2	97.4 +2	96.5 +1	97.5 +2	97.2 +1
	85.6	EffNetv2-M	96.0	95.1 -1	94.5 -2	96.6 +1	97.0 +1	97.1 +1	96.7 +1	93.3 -3	95.6 -0	97.4 +1	97.0 +1
none	81.1	ViT-B-384	95.1	95.9 +1	95.7 +1	94.0 -1	96.6 +1	96.9 +2	95.2 +0	96.0 +1	94.2 -1	95.9 +1	95.7 +1
	84.6	Swinv2-B-256	94.7	92.9 -2	91.7 -3	95.0 +0	96.7 +2	96.7 +2	94.1 -1	93.8 -1	95.1 +0	96.4 +2	96.6 +2
	85.1	DeiT3-B-384	95.3	93.1 -2	90.2 -5	95.3 -0	96.8 +2	97.1 +2	95.9 +1	89.3 -6	94.5 -1	96.3 +1	96.5 +1
	83.8	DeiT3-B-224	95.5	94.7 -1	93.7 -2	95.3 -0	96.6 +1	97.0 +1	96.2 +1	93.3 -2	93.7 -2	95.9 +0	96.2 +1
	82.6	XCiT-M-224	93.9	91.4 -3	88.6 -5	94.8 +1	96.2 +2	96.5 +3	96.4 +3	91.9 -2	94.7 +1	96.0 +2	96.1 +2
	84.3	XCiT-M-224-d	95.9	94.9 -1	93.3 -3	95.4 -0	96.4 +1	96.9 +1	96.4 +1	94.2 -2	94.9 -1	96.5 +1	96.5 +1
	84.4	CnvNxt-B	95.1	94.0 -1	91.7 -3	95.5 +0	96.2 +1	96.6 +2	95.2 +0	93.6 -1	94.6 -0	96.4 +1	96.7 +2
	78.0	BiT-s	95.0	94.1 -1	93.6 -1	94.8 -0	92.2 -3	96.7 +2	93.5 -1	94.0 -1	90.5 -5	93.8 -1	91.0 -4
	85.1	EffNetv2-M	94.7	92.8 -2	90.4 -4	95.6 +1	96.6 +2	97.3 +3	94.1 -1	93.1 -2	95.4 +1	96.8 +2	96.8 +2
	84.9	EffNetb7	93.4	89.9 -4	87.3 -6	95.8 +2	95.9 +3	97.3 +4	94.8 +1	89.7 -4	95.2 +2	96.6 +3	96.8 +3
	77.7	EffNet-B0	95.0	93.9 -1	93.2 -2	95.1 +0	94.0 -1	96.1 +1	95.2 +0	94.3 -1	94.1 -1	96.2 +1	95.6 +1
	80.4	ResNet50	95.3	95.3 -0	95.2 -0	93.4 -2	93.7 -2	96.5 +1	95.2 -0	91.3 -4	93.1 -2	96.1 +1	96.3 +1
JFT	86.8	EffNetb7-ns	95.4	94.1 -1	92.5 -3	95.5 +0	94.7 -1	97.1 +2	93.7 -2	93.4 -2	94.5 -1	96.5 +1	96.4 +1
clip	87.2	ViT-B-384-l2b	95.2	93.2 -2	91.7 -4	97.3 +2	97.9 +3	97.9 +3	98.2 +3	93.6 -2	97.3 +2	98.2 +3	98.1 +3
+21k	87.0	ViT-B-384-oai	96.1	94.7 -1	94.1 -2	96.9 +1	97.8 +2	97.9 +2	97.9 +2	95.0 -1	97.4 +1	98.1 +2	98.2 +2
clip	86.6	ViT-B-384-l2b	93.6	90.2 -3	88.7 -5	96.3 +3	97.2 +4	97.1 +4	96.9 +3	89.7 -4	96.1 +3	97.5 +4	97.4 +4
	86.2	ViT-B-384-oai	92.9	89.0 -4	87.5 -5	95.7 +3	97.2 +4	97.1 +4	97.0 +4	88.5 -4	95.8 +3	97.2 +4	97.3 +4
clip	74.3	clip-ViT-L-336	—	—	—	—	—	—	—	—	—	95.4	95.3
z. shot	66.6	clip-ViT-B-224	—	—	—	—	—	—	—	—	—	93.9	93.6

Table 2: **Mean AUPR-Error on our NINCO dataset.** Higher is better. The difference to MSP is shown in red if a method performs worse, and in green if it improves. Bold values mark the best-performing method per model. Sample sizes were fixed such that there are five times as many ID samples than OOD samples.

pre	acc.	model	MSP	MaxL	Ener	KL-M	Maha	RMaha	ViM	E+R	KNN	Cos	MCM/RCos
21k	86.0	ViT-B-384	59.2	68.4 +9	69.4 +10	58.8 -0	77.7 +18	75.4 +16	73.1 +14	66.4 +7	47.8 -11	61.1 +2	62.2 +3
	84.5	ViT-B-224	54.2	62.2 +8	63.5 +9	56.6 +2	76.0 +22	74.1 +20	68.3 +14	59.0 +5	41.9 -12	55.5 +1	56.0 +2
	86.3	Swinv2-B-256	59.1	66.1 +7	67.3 +8	52.1 -7	55.3 -4	59.9 +1	59.7 +1	69.0 +10	48.6 -11	58.0 -1	61.0 +2
	86.7	Deit3-B-384	51.3	51.5 +0	49.8 -2	51.5 +0	58.3 +7	61.6 +10	56.3 +5	54.6 +3	55.0 +4	61.6 +10	61.0 +10
	85.7	Deit3-B-224	48.0	48.6 +1	47.5 -1	46.8 -1	54.6 +7	57.2 +9	51.6 +4	50.5 +3	50.2 +2	56.7 +9	57.1 +9
	86.3	CnvNxt-B	62.5	65.3 +3	63.7 +1	54.5 -8	68.6 +6	71.2 +9	68.6 +6	66.9 +4	55.3 -7	64.6 +2	65.3 +3
	84.1	CnvNxt-T	56.3	60.8 +5	62.6 +6	51.4 -5	66.3 +10	66.5 +10	71.2 +15	63.4 +7	51.4 -5	58.0 +2	60.7 +4
	82.3	BiT-m	47.8	54.3 +6	54.6 +7	51.7 +4	63.6 +16	67.1 +19	68.3 +20	62.2 +14	55.7 +8	61.9 +14	60.1 +12
none	85.6	EffNetv2-M	58.6	58.5 -0	54.1 -5	55.6 -3	52.4 -6	57.7 -1	55.3 -3	30.9 -28	44.2 -14	61.9 +3	59.1 +0
	81.1	ViT-B-384	44.2	48.4 +4	48.0 +4	49.2 +5	56.9 +13	61.1 +17	46.1 +2	50.3 +6	39.2 -5	46.1 +2	45.3 +1
	84.6	Swinv2-B-256	45.9	46.0 +0	41.2 -5	47.2 +1	50.3 +4	54.1 +8	44.4 -2	44.5 -1	42.3 -4	48.8 +3	49.9 +4
	85.1	Deit3-B-384	47.5	42.3 -5	28.8 -19	49.4 +2	49.3 +2	53.9 +6	51.2 +4	26.6 -21	37.4 -10	45.3 -2	53.2 +6
	83.8	Deit3-B-224	47.1	45.2 -2	36.4 -11	46.8 -0	47.5 +0	51.3 +4	51.7 +5	35.5 -12	34.2 -13	42.7 -4	51.2 +4
	82.6	XCiT-M-224	42.4	39.9 -2	34.5 -8	44.3 +2	51.3 +9	54.0 +12	51.7 +9	38.0 -4	39.3 -3	45.9 +3	47.6 +5
	84.3	XCiT-M-224-d	48.4	49.0 +1	42.9 -5	47.8 -1	49.5 +1	53.4 +5	51.0 +3	43.1 -5	40.4 -8	47.5 -1	50.8 +2
	84.4	CnvNxt-B	51.8	47.5 -4	31.1 -21	45.2 -7	48.3 -4	53.4 +2	47.2 -5	36.9 -15	40.4 -11	49.1 -3	52.8 +1
	78.0	BiT-s	37.9	35.4 -2	33.7 -4	48.4 +11	32.2 -6	55.2 +17	37.2 -1	38.4 +1	29.3 -9	40.6 +3	31.3 -7
	85.1	EffNetv2-M	48.4	47.0 -1	37.2 -11	51.4 +3	52.2 +4	58.9 +10	42.4 -6	42.4 -6	48.1 -0	51.8 +3	57.8 +9
	84.9	EffNetb7	46.1	41.0 -5	29.3 -17	50.3 +4	46.9 +1	57.4 +11	41.8 -4	33.9 -12	45.6 -1	50.7 +5	57.1 +11
	77.7	EffNet-B0	44.3	43.2 -1	38.5 -6	45.4 +1	34.3 -10	46.2 +2	39.1 -5	41.0 -3	33.1 -11	52.6 +8	49.5 +5
JFT	80.4	ResNet50	43.7	42.9 -1	40.9 -3	46.6 +3	32.6 -11	51.0 +7	38.6 -5	20.7 -23	37.3 -6	52.7 +9	54.5 +11
	86.8	EffNetb7-ns	51.3	52.8 +1	47.5 -4	48.7 -3	35.3 -16	50.2 -1	32.1 -19	46.4 -5	39.4 -12	48.6 -3	50.5 -1
clip	87.2	ViT-B-384-l2b	58.9	58.2 -1	53.3 -6	56.5 -2	63.4 +5	63.9 +5	67.7 +9	59.4 +1	61.9 +3	66.7 +8	66.2 +7
+21k	87.0	ViT-B-384-oai	59.2	61.3 +2	60.0 +1	57.2 -2	60.5 +1	64.3 +5	63.2 +4	62.8 +4	59.7 +0	66.2 +7	67.3 +8
clip	86.6	ViT-B-384-l2b	51.3	47.4 -4	41.4 -10	54.6 +3	57.2 +6	59.0 +8	56.3 +5	44.7 -7	51.9 +1	59.3 +8	59.2 +8
	86.2	ViT-B-384-oai	47.1	42.7 -4	37.0 -10	50.0 +3	57.3 +10	59.1 +12	56.4 +9	38.8 -8	49.8 +3	55.7 +9	57.1 +10
clip	74.3	clip-ViT-L-336	—	—	—	—	—	—	—	—	—	44.8	46.7
z. shot	66.6	clip-ViT-B-224	—	—	—	—	—	—	—	—	—	39.0	38.0