

Table S1 Patient characteristics between IDC and DLBCL

Characteristics	IDC (n=160)	DLBCL (n=76)	P value
Sex			0.146
Female	160 (100.00)	75 (98.68)	
Male	0 (0.00)	1 (1.32)	
Age (year)	50.66±11.51	52.70±12.82	0.221
Height (m)	1.59±0.05	1.59±0.04	0.859
Weight (kg)	58.55±8.41	59.64±9.27	0.384
BMI (kg/m ²)	23.16±3.04	23.58±3.62	0.391
Stage			<0.001
I	12 (7.50)	24 (31.58)	
II	66 (41.25)	30 (39.47)	
III	31 (19.38)	1 (1.32)	
IV	51 (31.88)	21 (27.63)	

The data are represented as means ± standard deviation or number (percentage). IDC, invasive ductal carcinoma; DLBCL, diffuse large B-cell lymphoma; BMI, body mass index.

Table S2 Nodule characteristics between breast carcinoma and lymphoma in the external dataset

Characteristics	IDC (n=39)	DLBCL (n=36)	P value
Nodule size			
2D size (cm)	3.89±1.48	4.57±3.40	0.279
3D size (cm)	4.57±1.66	5.35±3.78	0.255
Nodule volume (cm ³)	15.40±17.60	81.06±217.97	0.080
PET parameters			
SUV _{min}	0.50 (0.03, 1.27) [†]	0.71 (0.01, 1.50) [†]	0.021
SUV _{mean}	3.57 (0.99, 7.88) [†]	7.44 (0.91, 17.72) [†]	<0.001
SUV _{max}	10.65 (1.44, 24.80) [†]	20.73 (1.65, 50.73) [†]	<0.001
MTV	5.45 (0.45, 40.84) [†]	27.40 (0.53, 446.06) [†]	0.108
TLG	22.50 (0.80, 175.67) [†]	376.41 (0.96, 7,905.91) [†]	0.127

[†], values refer to mean (range), other data are represented as means ± standard deviation. IDC, invasive ductal carcinoma; DLBCL, diffuse large B-cell lymphoma; 2D, 2-dimensional; 3D, 3-dimensional; SUV, standard uptake value; MTV, metabolic tumor volume; TLG, total lesion glycolysis.

Table S3 Comparison of AACNN_E model's performance with existing models

Models	Patients [nodules]	Datasets numbers	External dataset testing	Model performance evaluation metrics						
				AUC	ACC	SEN	SPE	PPV	NPV	F1
Ou <i>et al.</i> (17)	44 [67]	1	No	0.845	0.762	0.861	0.556	–	–	–
Ou <i>et al.</i> (18)	44 [65]	1	No	0.806	0.808	0.806	0.842	–	–	–
AACNN_E	324 [236]	2	Yes	0.886	0.830	0.809	0.850	0.848	0.812	0.828

AUC, area under the curve; ACC, accuracy; SEN, sensitivity; SPE, specificity; PPV, positive predictive value; NPV, negative predictive value; F1, harmonic mean of precision and sensitivity; AACNN, attention-based aggregate convolutional neural network ensemble; –, not mentioned.