

**Table S13. Performance of different miRNA-target interactions (MTIs) prediction strategies targeting four test datasets.**

miRNA	Software	Tp	Fp	Tn	Fn	ACC(%)	PPV(%)	FPR(%)
hsa-miR-30a	D	9	78	1397	9	94.173	10.345	5.288
	M	14	471	1004	4	68.185	2.887	31.932
	T	3	15	1460	15	97.991	16.667	1.017
	$D \cap T$	2	10	1465	16	98.259	16.667	0.678
	$M \cap D$	8	60	1416	9	95.378	11.765	4.065
	$M \cap T$	3	12	1463	15	98.192	20.000	0.814
	$D \cup T$	10	83	1392	8	93.905	10.753	5.627
	$M \cup D$	14	490	985	4	66.912	2.778	33.220
	$M \cup T$	14	474	1001	4	67.984	2.869	32.136
	$(D \cap T) \cup (M \cap T) \cup (M \cap D)$	10	65	1410	8	95.111	13.333	4.407
	$(D \cup T) \cap (M \cup T) \cap (M \cup D)$	10	65	1410	8	95.111	13.333	4.407
	$D \cup M \cup T$	14	491	984	4	66.845	2.772	33.288
	$D \cap T \cap M$	2	8	1467	16	98.392	20.000	0.542
	hsa-miR-1	D	29	45	1634	11	96.742	39.189
M		27	181	1498	13	88.714	12.981	10.780
T		17	23	1656	23	97.324	42.500	1.370
$D \cap T$		15	12	1667	25	97.848	55.556	0.715
$M \cap D$		25	25	1654	15	97.673	50.000	1.489
$M \cap T$		13	14	1665	27	97.615	48.148	0.834
$D \cup T$		31	56	1623	9	96.219	35.632	3.335
$M \cup D$		31	201	1478	9	87.784	13.362	11.971
$M \cup T$		31	190	1489	9	88.424	14.027	11.316
$(D \cap T) \cup (M \cap T) \cup (M \cap D)$		27	35	1644	13	97.208	43.548	2.085
$(D \cup T) \cap (M \cup T) \cap (M \cup D)$		27	35	1644	13	97.208	43.548	2.085
$D \cup M \cup T$		33	206	1473	7	87.609	13.808	12.269
$D \cap T \cap M$		13	8	1671	27	97.964	61.905	0.476
hsa-miR-155		D	24	25	1508	34	96.292	48.980
	M	34	328	1205	24	77.876	9.392	21.396
	T	24	9	1524	34	97.297	72.727	0.587
	$D \cap T$	19	6	1527	39	97.172	76.000	0.391
	$M \cap D$	22	11	1522	36	97.046	66.667	0.718
	$M \cap T$	21	8	1525	37	97.172	72.414	0.522
	$D \cup T$	29	28	1505	29	96.417	50.877	1.826
	$M \cup D$	36	342	1191	22	77.121	9.524	22.309
	$M \cup T$	37	329	1204	21	78.001	10.109	21.461
	$(D \cap T) \cup (M \cap T) \cup (M \cap D)$	28	15	1518	30	97.172	65.116	0.978
	$(D \cup T) \cap (M \cup T) \cap (M \cup D)$	28	15	1518	30	97.172	65.116	0.978
	$D \cup M \cup T$	37	342	1191	21	77.184	9.763	22.309
	$D \cap T \cap M$	16	5	1528	42	97.046	76.190	0.326
	hsa-let-7b	D	3	102	1356	12	92.261	2.857
M		8	510	948	7	64.902	1.544	34.979
T		0	0	1458	15	98.982	-	0
$D \cap T$		0	0	1458	15	98.982	-	0
$M \cap D$		1	90	1368	14	92.940	1.099	6.173

M∩T	0	0	1458	15	98.982	-	0
D∪T	3	102	1356	12	92.261	2.857	6.996
M∪D	3	102	1356	12	92.261	2.857	6.996
M∪T	8	510	948	7	64.902	1.544	34.979
(D∩T)∪(M∩T)∪(M∩D)	1	90	1368	14	92.940	1.099	6.173
(D∪T)∩(M∪T)∩(M∪D)	1	90	1368	14	92.940	1.099	6.173
D∪M∪T	10	522	936	5	64.223	1.880	35.802
D∩T∩M	0	0	1458	15	98.982	-	0